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FELLOWS
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CHEMICAL
SOCIETY
&c. &c.

MANUFACTURING CHEMISTS

DISTILLERS
AND IMPORTERS OF

ESSENTIAL OILS

OF
GUARANTEED PURITY
PURE CONCENTRATED

SOLUBLE ESSENCES

FRUIT-ESSENCES



PURE COLOURINGS

OF EVERY DESCRIPTION

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OIL of LEMON
GUARANTEED
ABSOLUTELY PURE

SOLUBLE ESSENCE
OF
LEMON.

SWEET ORANGE
BELFAST GINGER ALE

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FRUIT
CHAMPAGNES.
&c. &c.

AMERICAN
FOAM SYRUP,
FOR GIVING A CLOSE
CREAMY HEAD TO
ALL BEVERAGES

ALL MATERIALS
REQUIRED BY
CONFECTIONERS
BISCUIT MAKERS
WHOLESALE
TOBACCONISTS.
SOAP MAKERS,
PERFUMERS,
&c. &c.

EXTRA QUALITY
SOLUBLE ESSENCE
OF
JAMAICA
GINGER

A PERFECT
GINGER ESSENCE
See The Lancet, July 3rd 1886

HIGHLY
CONCENTRATED
FRUIT
ESSENCES

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VEGETABLE
COLOURS
FREE FROM ANILINES

SOLUBLE
CONCENTRATED
COLOURINGS
FOR ALL LIQUIDS.

ALL MATERIALS
REQUIRED BY
MINERAL WATER
MAKERS,
CORDIAL MAKERS,
DISTILLERS & BREWERS, &c.

5—FACTS—5

"Coffee which makes the politician wise,
And see through all things with his half-shut eyes."—*Pope*.

1.—THAT THOS. SYMINGTON & CO.'S "EDINBURGH" COFFEE ESSENCES
have the Largest Family Sale throughout the World. Pure
and Strong.

2.—THAT their DANDELION COFFEE ESSENCE affords great Relief to
Sufferers from Biliousness or Indigestion, and is highly praised.

"One sip of this will bathe the drooping spirits in delight
Beyond the bliss of Dreams. Be wise, and taste!"—*Milton*.

3.—THAT their "PERFECT" MALT EXTRACT contains more active
principle (*Diastase*) than any other kind, and is therefore invaluable
for Children and Invalids.

**4.—THAT "for the Table, the Nursery, or the Sick Room, these pre-
parations are indispensable."**

**5.—THAT those who sell or use all or any of these will favourably
remember**

SYMINGTON, EDINBURGH.

12—GOLD AND SILVER MEDALS—12

Have been Awarded the following Specialties of

THOS. SYMINGTON & CO., EDINBURGH,

For Purity and Excellence of Quality:—

Essence of Pure Coffee	...	...	...	In 6d., 1s., and 2s. Bottles.
Do. Coffee and Chicory	...	...	...	In do. do.
Do. Dandelion Coffee	...	...	...	In 1s. and 2s. Bottles.
"Edinburgh" Coffee and Milk	...	...	...	In 1-lb. Tins.
"Edinburgh" Chocolate and Milk	...	...	...	In do.
"Edinburgh" Cocoa and Milk	...	...	...	In do.
Prepared Taraxacum (Dandelion)	...	...	...	In $\frac{1}{4}$ and $\frac{1}{2}$ lb. Tins.
Do. do. with Pure Coffee	...	...	...	In do. do.
"Perfect" Malt Extract	...	...	...	In 8-oz. (fluid) Bottles.
Do. do. with Cod Liver Oil	...	...	...	In do. do.

MANUFACTURED BY

THOS. SYMINGTON & CO., EDINBURGH.

THE CHEMIST & DRUGGIST

SUPPLEMENT.

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, JUNE 8, 1889.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 12 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the issue of the Saturday following.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE, and crossed MARTIN & CO.

OFFICES: 42 CANNON ST., LONDON, E.C.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.
CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1845, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—LONDON SUBURB, SOUTH.—First-class locality; good-class Retail and Dispensing Business, with P.O. attached; returns last year £650; corner shop, well stocked; price about £450; part may be paid by instalments.

2.—LONDON, S.W.—Small select Retail and Dispensing; returns about £300 yearly, capable of being much increased; good house, garden, &c.; about £300 required.

3.—LONDON (CENTRAL).—Select Retail and Dispensing Business; returns nearly £900 yearly, with profits above the average; large handsome shop and good stock; about £900 required.

4.—LONDON, N.—Main road; bus and trams pass the door; profitable Retail and Dispensing Business; returns last year £500; well-fitted shop and good stock; about £500 required, or offer considered.

5.—LONDON SUBURB, W.—Attractive locality; good-class Business; returns last year £800, with good profits; well-fitted shop and good stock; convenient house and garden; price about £775.

6.—WATERING-PLACE.—Inland; season just commencing; returns £2,500; well situated in main street; commanding handsomely-fitted shop; price about £1,500; full particulars on application.

7.—HOME COUNTY.—Good Family Retail and Dispensing Business; no heavy trade; good opening for Dentistry; returns nearly £600; double-fronted well-fitted shop and good stock; good house and garden attached; price about £560.

8.—SOUTH DEVON.—Large town; Retail, Dispensing, and Family Business; returns nearly £900; well-fitted shop and good stock; about £550 required; worth attention.

9.—KENT.—Unopposed Country Business, situate in attractive locality; returns last year nearly £600; good house, garden, &c.; vendor's own property; price £550.

10.—WORCESTERSHIRE.—Old-established Mixed Business; returns £800, with good profits; large house and good garden; price about £520.

11.—WILTSHIRE.—Good market town; profitable Retail and Family Business; returns £1,040; price, to include some valuable properties, £650.

12.—SOMERSETSHIRE.—Main line of rail; good-class Retail and Dispensing Business; returns last year nearly £900; large shop and good house; business must be sold; any reasonable offer accepted.

13.—KENT.—Good town; very profitable Business; returns nearly £850; profits considerably above the average; about £800 required.

14.—LANCASHIRE.—Good-class Dispensing Business; returns nearly £900 yearly; well-fitted shop and good stock; large house; price £550.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. Orridge & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

F. J. BRETT,

VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE**DERBYSHIRE.**—Returns £700; Light Retail, Prescribing, and Dispensing; illness sole cause of sale; price £500 or small premium and valuation.**NOTTINGHAMSHIRE.**—Returns £1,200; old-established Retail with Wines and Spirits; vendor retiring; energetic man could much increase it; valuation about £750; can reduce to suit buyer.**CAMBRIDGE.**—Light Retail; returns £5 to £6 per week; price £120; open to reasonable offer.**NORTH HANTS.**—Country Retail; returns £200, has done over £700, and can again; vendor advanced in years, has neglected it; price £130.**PRESTON.**—Returns £4 to £5 week; price £150.**SOUTH (Seaside).**—Returns £1,300; Dispensing, Light Retail, and Photographic apparatus; price about £1,000.**LONDON, N.W.**—Returns £400; Dispensing, Light Retail, &c.; price £250.**LONDON, N.**—Returns £4 week, can be doubled; price £120.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

FIRST-CLASS, extensive, and old-established Wholesale Chemist and Druggist's Business, in a large town. Apply to Kirk & Donaldson, 175 West George Street, Glasgow.**OLD-ESTABLISHED** Dispensing and Family Business for sale, in one of the most popular county towns in the North of Scotland; good reasons for disposal. Apply, Raimes, Clarke & Co., Edinburgh.**SUFFOLK.**—For disposal, an old-established Business; no opposition; situate in a town of 2,300 population; the business has been for some time conducted by a manager; returns about £400; price £200. Apply C. H. Warner & Co., 55 Fore Street, City.**LONDON, W.**—Good Retail and Prescribing Business; large corner house and shop in thickly populated neighbourhood; long lease; returns £500; profits very good; splendid opening for medical man; price by arrangement, or cash down £400. Apply, D., 239 Hammersmith Road, W.**HORSE and Cattle Medicines.**—Prosperous Concern; one of the oldest in England; worked without advertising; immense profits; valuable opening for business man with capital; ingoing about £3,000; sold through failing health; part purchase remain. Every particular from Frederic Goodeve, 35 Cannon Street, Birmingham.**£70.**—**LONDON, N.W.**—Genuine little Family, Retail, and Prescribing, capable of great increase; present returns £3 week, over half profit; no patents; wants slightly fitting; good stock; rare chance to one with small capital; every inquiry courted. Letter first instance, O. Grant, 22 Paul Street, Finsbury.**UNOPPOSED** good-class Country Business, one hour from London on main line G.W.R., returning £800; full price; rent £25; good house and garden; best position in village; same hands many years; price £500; every investigation allowed. Address, J. H. W., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**LONDON, E.C.**—Very profitable Retail and Dispensing Business; returns under manager £318; business capable of being much increased; well-fitted shop and good stock; convenient house and premises; business must be sold; any reasonable offer will be accepted. Apply at Messrs. Orridge & Co.'s Offices, 32 Ludgate Hill, London, E.C.**CAIRO.**—An excellent foreign Pharmacy is now for disposal in Cairo, offering first-class opportunity for an English pharmacist. There is at present no English Pharmacy in Egypt, and there is great need for one. The business now offered can be bought for £600. Apply to "Egypt," care of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

"**FOR** Sale, a Chemist's Business situated in a good-class neighbourhood in Leeds; turnover about £1,000, including post office £60, and Wines and spirits; rent £70 (house and shop); the owner is going abroad, and is anxious to realise, so offers the stock, &c., at a valuation, without goodwill. Apply, "B," Hirst, Brooke & Hirst, Leeds.

"**SURREY.**—Old-established; same hands 25 years; Light Retail, Prescribing, Dispensing; full prices; returns over £900; well stocked; good opportunity for Mechanical Dentistry; rent £50; also Branch; increasing returns; rent £32; to be sold together or separately. Address, "Saccharin," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR SALE.—Owing to death.—One of the oldest Dispensing and Retail establishments in the North of Ireland; magnificently finished, and situated in a large commercial centre; takings before death of proprietor, about £1,900 per annum. Apply, by letter, to "Smilax," care of Barron & Harveys, Giltspur Street, London. Mr. Charles Harvey can give some particulars.

LIGHT Retail and Prescribing; small business; well situated, and capable of great extension; cash trade; full prices; every investigation. Address or apply to H. F. P., 70 Northgate Street, Canterbury, Kent.

RETIRING from business.—Chemist, Druggist, and Stationery Business, with Small Lending Library, to be disposed of at once; stock and fixtures at valuation, about £200; rent £28; side entrance, yard, &c. Apply, G. Morley, 10 Lumley Road, Skegness, Lincolnshire.

BRIGHTON.—The stock and fixtures of the late W. Barnett, 84 St. James's Street, for disposal; mahogany fittings; no reasonable offer refused; must be cleared. Apply, W. W. Savage, Chemist, 109 St. James's Street, or O. Masterson, Executor, 16 Hanover Crescent, Brighton.

CHEMISTS and Surgeons.—Chemist's Business, Prescribing; established 30 years; well suited for young Surgeons commencing; combining a Dispensary with Midwifery; populous neighbourhood; no opposition; selling through age; price £50. Letter, Mr. Baker, 141 Fleet Street, E.C.

AN old-established Prescribing, Dispensing, and General Retail Business, with good Family trade, in a country town; full prices; nearest Chemist's 5 miles distant; convenient house, garden, greenhouse, and good stable; present hands 23 years; price £550. A. J., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C. No agents.

AN Old-established Business in good market town; immediate possession; double front, plate-glass windows; commanding position; in present hands 16 years; ill-health cause of disposal; average returns for last three years £2,150; valuation about £1,000; terms easy; can have a yearly tenancy or lease. Apply, Mr. Elmitt, Newcastle.

LIVERPOOL.—An old-established Drug Business in a populous neighbourhood near North Docks and principal engineering works; capable of great improvement; stock and fixtures at valuation, about £80; present proprietor having other engagements; good shop and house; rental £35. Address, Dr. Wilson, 27 Shadwell Street, Liverpool.

SURREY (Special).—Choice of three genuine Businesses.—(1) Unopposed, returns £450, rent £30, net profit £200, price £300; (2) Branch in charming locality, stock and fittings worth £350, rent cleared, price £300; (3) Unopposed, returns £350 under assistant, rent £20, garden, price £240. Full particulars of Messrs. Berdoe, 30 Jewry Street, Aldgate, City.

QUEENSLAND.—In a prosperous and rising town; old-established Business, Retail and Dispensing; takings the last two years, £6,102 and £5,753 respectively; owner retiring and coming to England; price for goodwill and lease, &c., £1,600; stock and fixtures at valuation; terms easy. For further particulars, apply to Q. R., Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London, E.C.

LONDON.—Immediately, in consequence of the owner's failing health, two Businesses, either together or separately; one situate in City and the other in a northern suburb, the latter with a convenient residence; both businesses have been worked separately, and each capable of considerable extension; about £800 required, or valuation will be agreed to; the united returns amount to about £1,100 yearly. Apply at Messrs. Orridge & Co.'s Offices, 32 Ludgate Hill, London, E.C.

£1,400 RETURNS.—For immediate disposal, first-class ready-money Retail, Dispensing, and Prescribing Business in fashionable seaside resort, South; the shop, house, and premises are large, commodious, well-fitted, and stocked for an extensive business; main thoroughfare, commanding position; established over half a century; in present hands nearly six years; low rental; price, to include valuable proprietorship, £800. Address, "Sanitas," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESS WANTED.

WANTED, a good Retail Business, suitable for a Doctor, to carry on a Cash Practice at the same time; good receipts and little opposition desired. Particulars will be received in confidence by W. Hornbrook Medical Agency, 17 Bloomsbury Street, Oxford Street, W.C.

SALE BY TENDER.

SYDNEY GREENWOOD, Transfer Agent and Accountant, is instructed by Mr. W. H. Barton (late Barrow Evans) to offer for Sale by Tender, the Goodwill, Fittings and Fixtures of two businesses, 8 St. Peter's Street, Derby, and 3 Commercial Buildings, Stapleford, both as going concerns. Tenders received up to June 15, 1889; printed forms and particulars on application. Transfer Offices, Pittville House, Lea Bridge Road, Clapton, N.E.

SALE BY AUCTION.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

9 HIGH STREET, CONGLETON.

MR. JAMES HILDITCH is instructed by the representatives of the late Mr. Charles Goode to sell by Auction (on the premises), on Tuesday and Wednesday, June 18 and 19, 1889, at 1.30 each day, the stock, fixtures, fittings, and trade utensils of a Chemist and Druggist, including drugs, patent medicines, and sundries, carboys, jars, gold-labelled stoppered bottles, mahogany show-cases, counter, brass scales and weights, pill machines, mortars, and miscellaneous effects; to be sold in lots without reserve. May now be viewed on application to the Auctioneer, 54 High Street, Congleton.

PARTNERSHIP.

PARTNERSHIP.—Advertiser (in business) will co-operate with a gentleman possessing a small capital (about £100), and knowing of a good opening; Surrey or Sussex preferred. Address, "Branch," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR SALE.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO be Sold, the entire Fixtures and Fittings of a shop, 19 ft. by 12 ft.; the fixtures are solid mahogany, and in thoroughly good condition. Apply, H. Wyatt, 20 Derby Road, Bootle-cum-Linaere.

IMMEDIATE.—Must be sold before 24th June, for removal, landlord requiring shop for gunmaker, the Stock and Fixtures of old-established Chemist's business in the county town of Welshpool; population over 7,000; two Chemists; under qualified management four years; no reasonable cash order refused. "Statim," 1 Bradford Street, Shrewsbury.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

CENTRAL Business Premises to Let; immediate possession; grand position, facing market-place; shop will be divided and let separately if desired; double plate front; counters and fixtures; house, 12 rooms, separate, or with either half-shop; splendid opening; population 6,000; rent moderate; see photograph. G. Maynard, Shepton Mallet, Somerset.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

CHEMIST'S Assistant wanted. Apply personally, E. Lacy & Co., 94 Whitechapel Road.

JUNIOR Assistant for good-class dispensing and retail business. Apply, T. Squire, 121 Cornwall Road, W.

COMPETENT Assistant; a permanency; outdoors. Apply, stating qualifications, age, height, and references, to M. M., 126 Corporation Street, Birmingham.

WANTED, early in July, Assistant for part time only, about 20 hours per week, on three days only; engagement for two months. Apply to Coley, Chemist, & troud.

WANTED, Clerk, to take charge of office and set of books; don't know entry; must know the business. Newham & Pickard, Manufacturing Chemists, Sheffield.

A N Assistant, for a mixed country business, to take charge of the Drug department; a Wesleyan preferred. Apply, stating age, salary, and references, to H. Lunn, Newcastle.

WANTED Junior (Indoors) for good-class Country Business; an accurate Dispenser; state age, height, experience, and salary required. Jenkins, Chemist, Faversham.

CHINA AND JAPAN.—Junior Qualified Assistants, with first-class experience and references; liberal terms. Apply to Dakin Brothers, Creechurh Lane, Leadenhall Street, London, E.C.

WANTED, qualified Assistant for Light Retail and Dispensing; aged 26 to 30; state salary expected (outdoors). Enclose carte, and give recent references, to "Chemist," 311 Stanley Road, Bootle, Liverpool.

J. C. POTTAGE, Homoeopathic Chemist, 117 Princes Street, Edinburgh, is in want of an active, qualified Assistant, not under 25 years of age; state salary and reference, also enclose photograph.

Dispensers.—Wanted, at once, a Dispenser (outdoors); must be married, and under 35 years of age; no Sunday work. Apply by stating age, experience, and salary required, to H. A. C., 136 Queen Street, E.C.

SPANISH TRADE.—Communications are invited from gentlemen familiar with the drug trade in Spain and South America, and able to write Spanish fluently and correctly. "Spala," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EXPORT DRUGGISTS.—Thoroughly competent Clerk wanted, about 26, capable of managing office; good all-round experience in the trade essential; liberal salary to suitable man; highest references indispensable. Full particulars to "T 123," Messrs. Deacon's, Leadenhall Street.

AT ONCE.—Dispenser, outdoors, aged about 22, accustomed to first-class Dispensing and Light Retail, for a first-class Dispensing and Retail Business in the South of Ireland. Apply, with usual particulars, and enclose photo (which will be returned), to "Ireland," care of Newbery & Sons, 1 & 3 King Edward Street, E.C.

IMMEDIATELY.—An energetic Junior Assistant for Light, Agricultural, and Dispensing business. Apply, with full particulars, references, height, and salary (indoors), enclosing photo, W. Gouldbourn, Chemist, 14 Pride Hill, Shrewsbury.

APOTHECARY (qualified) wanted, age about 30, to Manage small business, Prescribe and Dispense; must be good counterman, civil and obliging, and of temperate habits; personal application preferred. Apply, C. W. Austiu, 35 Brewer Street, Regent Street, London, W.

TRAVELLER wanted, by an old-established firm of Spongo Importers, as representative for the Midland Counties, on commission; unexceptionable references and security required; full particulars. S. R., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED immediately, an Improver; ample time for study; comfortable home; one who would take an interest in the business, and capable of being left in charge; no salary first six months. Apply, with full particulars, to "Chemist," 179 Albert Road, Southsea, Hants.

LOCUM-TENENS.—A gentleman is required one or two days a week for a permanency; must be an experienced man and well recommended; for the West End. Apply by letter, stating terms and what days at liberty, to "Lex," Northover's, 34 Duke Street, Manchester Square, W.

WANTED immediately, Assistant (outdoors preferred); aged about 23; accustomed to good country Retail and Dispensing Business; must be quick, obliging, and of steady habits; moderate hours; no Sunday duty. Apply, stating age, height, salary, and carte (returned), to W. Boor, 1 High Street, Wisbech.

WANTED, immediately, a trustworthy Assistant, able to take charge in occasional absence of proprietor; one accustomed to extract teeth preferred; must be well recommended; a good junior would suit. State salary and full usual particulars, with two last references, and enclosing photo, to E. Griffiths, Chemist, St. Columb, Cornwall.

IMPROVER.—Wanted, gentlemanly Youth as Improver, having a knowledge of the trade, in a good-class Family and Agricultural business; hours of business short; no Sunday duty. Also an indoor Apprentice; passed Preliminary Exam; every facility for learning the business; moderate premium. Apply, T. E. B. Blankley, Chemist, Brigg, Lincolnshire.

ASSISTANT, to manage a branch at the seaside; energetic, good address, obliging; capable of working up a business; references must bear strictest investigation; a comfortable home offered; teetotaler and member of a Christian church preferred; state age, height, references, salary (indoors), and when disengaged; enclose carte (to be returned). Griffith, Medical Hall, Canterbury.

WHOLESALE.—Wanted, in office of Wholesale Firm in the North, a young man of businesslike habits; would be required to undertake town collecting, to assist in office work, and to take an occasional journey; must be of good address, and have a knowledge of the trade; preference would be given to one having previous wholesale experience; highest references indispensable. Apply, with full particulars as to age, salary required, &c., to "Pharmacy," care of Messrs. S. Maw, Son & Thompson, 11 Aldersgate Street, London, E.C.

HULL Royal Infirmary.—A Dispenser and Assistant Dispenser required; candidates for the Senior Appointment must have passed the Major examination of the Pharmaceutical Society; the salary is £100 per annum, with lunch in the Hospital; the Assistant Dispenser must have passed the Minor examination of the Pharmaceutical Society; the salary is £50 per annum, with lunch in the Hospital. Applications, stating age, with copies of testimonials, must reach the undersigned on or before Wednesday, the 12th June, at 10 A.M. Benj. Brooks, Secretary Board Room, 31st May, 1889.

APPRENTICESHIP.

WANTED, to place a Youth, aged 16, where he will have every opportunity for learning a good general knowledge of the Drug Trade; state premium, indoors, for 3 years. Saml. Weight, Bridge Street, New Swindon.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

MANAGER or Assistant; aged 30. W., 43 Cartwright Street, Doncaster.

LOCUM-TENENS, town or country; aged 40; qualified. "Chemist," Medical Hall, Llandudno.

LOCUM-TENENS; 26; experienced; good references; moderate. L. Wookey, Shipham, Bristol.

AS Junior; aged 23; 5½ years' experience, London and provincial. W. R., 71 New Briggate, Leeds.

AS Senior or Manager; Minor; aged 26; good experience. Bigot, 13 Mouson Road, New Cross, S.E.

LONDON.—Junior, with time for study; aged 20. "Belladonna," 93 Alma Terrace, West Croydon.

IMPROVER; country retail; aged 20; abstainer; good references; salary nominal. Peck, Christchurch.

ASSISTANT, temporary or permanent; aged 22; Extractor. "Chemist," 57 Woodbine Grove, Penge.

DAILY.—Locum-tenens; partially disengaged; qualified; good references. "Stock," 2 Alma Villas, Sidecup.

MANAGER or Assistant; aged 28; married; disengaged. "Chemist," 35 Robert Street, Swansea.

M. R. H. SEYMOUR, 37 Milk Street, Bristol, undertakes engagements as Locum-Tenens; varied experience; good references.

ASSISTANT or Manager (26); thoroughly experienced; single; 3 years' reference. "Liberty," 6 Oxford Street, Newcastle.

AS Senior or Dispenser; first-class experience and testimonials; disengaged. M., 24 Palace Street, Buckingham Palace Road, S.W.

SURGEON'S RETAIL, Management of; aged 24; reliable and experienced; medical references. A. B., 37 Trafalgar Street, S.E.

WHOLESALE; wet or dry counters, or assist in laboratory; good experience; good references. C. H., 14 Hanover St., Birmingham.

JUNIOR in good Dispensing business; 3½ years' experience; good reference; aged 23½; disengaged. H. Y. E., 15 Market Place, Kettering.

TRAVELLER for Wholesale Drug House; Sheffield district preferred; qualified; guarantee if necessary. W., 38 Kearsley Road, Highfields, Sheffield.

ADVERTISER wishes to enter good house; competent dispenser; outdoors; time for study; London preferred. Arthur Huckle, Birdhurst, Croydon.

MANAGER or Senior; temporary or permanent; qualified by exam.; good references; experienced. "Nemo," 237 Goswell Road, London.

LOCUM-TENENS; experienced; abstainer; good references; duty conscientiously discharged. "Veritas," 10 Bond Street, Higher Broughton, Manchester.

WANTED, a situation as Druggist's Porter; 26 years with the proprietors of Norton's Camomile Pills. Apply, R. Hancock, 9 Hazelwood Road, Walthamstow.

MANAGER of Business or Dispenser to Institution; married; no family; aged 31; Minor; experienced; testimonials. "Alpha," Wadenhoe Rectory, Oundle.

AS Assistant or Manager; unqualified; good general experience; single (35); abstainer; disengaged June 15. "Pro Tem," 56 Ranelagh Road, Sheerness.

LOCUM-TENENS, disengaged the 11th instant; references thoroughly satisfactory. Ch. W. Wiggins, 21 Malvern Road, Kilburn, London N.W.

M. R. S. SMITH, 15 St. James' Square, Bristol, takes Confidential Management during absence or illness, or Branch; varied experience; disengaged for July.

BRANCH Manager or otherwise; good experience and references; successful as branch manager; qualified. W. Jones, 4 Suffolk Place, Pall Mall, London, W.

OUTDOOR; 20 years' experience; good references; last one (London) 8 years; used prescribe and extract teeth; liberty July. "Permanency," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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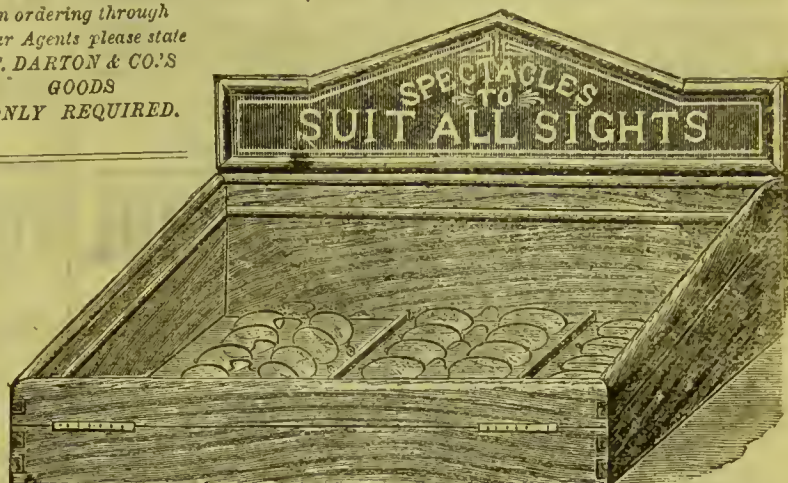
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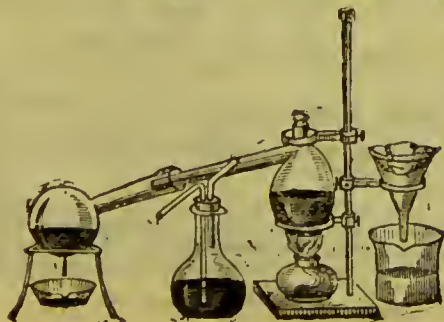
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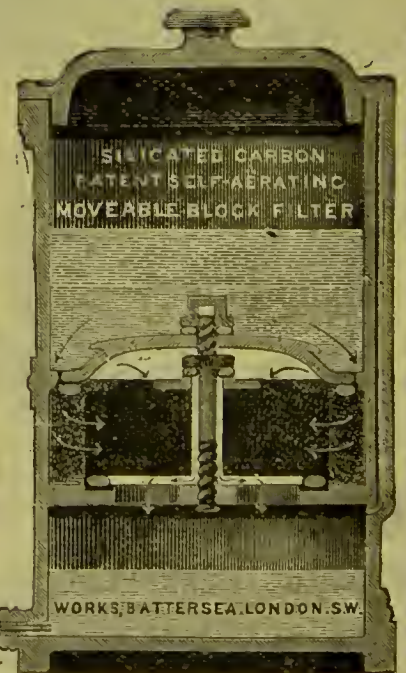
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Wonderfully successful!—After 10 years Brooks's recipes hold their own. Send 1s. 6d. postal order or stamps for any three as under:—"Red Rose Lotion," like sulpholine; "Quinine and Iron Tonic," resembles Pepper's; "Embrocatio alb.," equals Elihu's; "Eau de Cologne," like Farina's best; "Herbal Extract," preferred to Mason's; "Digestive Syrup," far superior to Seigel's; "Eucalyptus Crystals," perfect disinfectant, strong as sanitas, sweet and refreshing, costs under 3d. lb. Every recipe practicable; preparations from them sold daily; list free. T. Brooks, Chemist, Hornsey, London, N.

Soda-water Machinery

Soda-water aerating machine (Barnett & Foster's Niagara), with pumps, &c., complete, for sale. Apply to Chemists' Aerated and Mineral Waters Association, 45 Gifford Street, London, N.

Second-hand soda-water machinery for sale, as sound as new, and at half the price:—1 pair 2½-in. pumps, complete, with solution pan, fast and loose pulleys, by Hayward Tyler & Co., 30s.; 1 12-gal. copper cylinder on stand complete, with safety valve, pressure and water gauges, 4-way outlet and taps, and tight pulley, by Hayward Tyler & Co., 12s.; 1 16-gal. vertical copper cylinder, on tripod frame, safety valve, pressure and water gauges and tight pulley, with agitator, by Hayward Tyler & Co., 10s.; 1 No. 3 soda-water machine, with 1½-inch pump, 1 gal. gun-metal cylinder, water gauge, safety valve, solution pan and pipes for hand power, by Hayward Tyler & Co., 6l. 10s.; 1 copper gas bell, 4 ft. by 2 ft., with oak tub, weight and internal pipe, &c., complete, 5l. 10s.; 1 No. 1 lead generator, with acid bottle, by Hayward Tyler & Co., 4l. 10s.; 1 Mondolot copper purifier, 2 ft. by 1½ ft. diameter, on stand, 3l. 0s.; several syphon fillers by Hayward Tyler & Co., from 2l. to 3l. 10s. each; 1 London bottling rack (to bolt to upright), 1l. 10s.; several single and double wiring stands, from 5s. to 15s. each; also copper gas bell, 5½ ft. by 2½ ft.; copper gas bell, 4 ft. by 2 ft.; 1 vertical 3-inch deep well pump (8-inch stroke); 6 10-gallon copper swing cylinders, without stands, each with draw-off tubes; filters, sumpers, and other mineral water requisites. For further particulars apply to Idris & Co., Ascham Street, Kentish Town, London, N.W.

Shop Fittings.

Two counters and a quantity of excellent shelving, new stained deal. Carter, Chemist, Woolwich.

Immediately.—Drawers, shelves, bottles, books, and numerous articles pertaining to a chemist's stock-in-trade. Apply at the house, Dr. Barker Smith, Dulwich, S.E.

Three handsome window show jars, 33 in. high, labelled, gilt glass covers, on octagon mahogany stands 9 in. high; list 8l. 8s. each; offers wanted. E. A. Turner, 280 Fulham Road, S.W.

Drawers, several nests, various lengths; also bent-glass counter onces, desks, dispensing-screens, counters and shop fittings of every description. Great bargains; at Phillip Josephs', 54 Old Street, Goswell Road, London, E.C.

To Medical Men, Chemists, and Others.—Dispensary fittings, superior; drugs, labelled bottles, drawers, counter, &c., complete, valued at 20l.; 10l. will be taken for prompt purchaser; going abroad; good opening. "Dispensary," 6 Hyde Road, Bridport Place, Hoxton.

A bargain.—The entire fittings of a chemist's shop, counters (glass fronted), screen, counter drawers, desk and case, wall case, wall fittings, lockers, drawers, uprights, shelving, all mahogany-fronted, with cornice over all, suitable for a shop 16 ft. by 13 ft., fixed any part of country, including window enclosure, 50l.; sketch on application; also a quantity of other fittings, cheap. Elkanah Natali, 207 Old Street, London.

For sale.—6 ft. dispensing screen, with mirror centre and marble slab, 5l. 10s.; ditto, ditto, new design, 6l. 10s.; 180 new gold-labelled rounds, jars, and syrup bottles, 9l.; 24 2-lb. jars, 1s. 6d. each; 24 3-lb. ditto, gold labelled, 2s. each; 124-lb. best pink ditto, 4s. 6d. each; 12 ft. range mahogany-fronted drawers, bevelled plate-glass labels and crystal knobs, 9l. 10s.; 12 ft. range pine ditto, French polished, gold labels and glass knobs, 6l. 12s.; bent-front tooth brush case, 20s.; 6 4-gallon carboys, 10s. each; handsome dispensing screen, 8 ft. 6 in. long, nearly new, 10l. R. Tomlinson & Sons, Bond Street, Birmingham.

Glass bottles, job lines.—About 50 gross 3-oz. pale green wide-mouth rounds, 4s. 6l. per gross; 4 gross 6-oz. screw necked capped pomades, 16s.; 1 gross 16-oz. ditto, 30s.; 4 gross 2 oz. tinted vials, 3s. 9d.; 3 gross 1-pint green syrups, 7s.; 4 gross 1-pint ditto, 10s.; 2 gross 1-pint ditto, 15s.; 1 gross 1 oz. Grn Kalls, burst off, 3s.; 1 gross 6-oz. flat sauces, stoppered, 10s.; 10 gross 3-oz. opal, 20s.; 5 gross 1½-oz. opal, 12s.; 2 gross ½-oz. opal, 9s.; 5 gross ½-pint white syrups, 12s.; 3 gross 1-pint ditto, 20s.; 1 gross 6 draehm lavender, 5s.; 4 gross 6-draehm oval essences, 4s.; 3 gross 2-oz. white globe-necked panels, 7s. Hearn, 381 Kingsland Road, London.

Shop fittings, as good as new, less than half-price, consisting of chemist's counter cases, 10s. to 10l.; wall cases, 1l. to 20l.; tooth-brush cases, 1l. to 3l.; desk cases, 2l. to 4l.; dispensing screens, 3l. to 9l.; counters, 1l. to 12l.; drawers from 15s. to 3l. 10s. per nest; plate looking-glasses, 5s. to 4l.; specio jars, 10s. to 3l.; earbays, 7s. to 21s.; abop rounds, 3s. to 9s. dozen; ointment jars, pink or blue, 3s. to 36s. per dozen; pill machines, 12l. 6d.; marble slab, 2s. 6d.; glass shelves, polished edges, 1s. 6d. per lineal ft.; glass stands, 3 tier, 12s. to 3l.; also entire modern fittings for chemist's shop; payments on the hire system by arrangement. Natali & Co., 184 Aldersgate St. (nearly opposite Maw's).

Miscellaneous.

Microscope slides, 5s. doz., or exchange. Henry Ebbage, 344 Caledonian Road, N.

Mahogany cigar case, as Maw's fig. 34, fair condition, 10s. Speechly, Bishop Stortford.

Papier moure, 500 for 7s. 6d., paid; 10 dozen Cooper's sinapine tissue for 24s. Mickle, Chemist, Liverpool.

A patent sheep-dipping machine, cost 30l., take 15l. Apply, W. H. Scott, Medical Hall, Sandy, Beds.

3d. vermin-killer, 12s. gross; best Pontefract cakes, 7 lbs., carriage paid, 6s. Young, Pontefract.

French counter-scales, gold-labelled shop-rounds, 6-gall. carboy, specio-jars, an assortment of 2s. 9d. patents and proprietaries. Clayton, Chemist, Oxford.

1s Okell's mona houquet 6s. per dozen; 1d. A. Davis's brass powder, 5/6 per gross; any quantity, carriage paid. Elliott, Chemist, Bedford.

Second-hand London-made gravimeter in mahogany box (11 ins.), weighs from 500 grains to 1/15th of a gram. Dr. Stroug, Ross, Herefordshire.

One share Chemists' Water Company, dozen tooth forceps (Maw's), 3 keys, 2 lancets (good as new), nitro-glycerine tablets (Martindale's); half-price lot. Ison, Shrewsbury.

18 30-oz. pink shop jars, with shield space for label, Maw's fig. 12, richly gilt and decorated, 2s. 9d. each; 18 70-oz. pale blue and white ditto, plain, 30s. lot. "Chemist," 99 Broad Street, Hanley.

36-in. Rudge safety bicycle, geared to 55 in., ball bearings, ball rat trap pedals, plated parts, in best condition, tires unscratched, with saddle, lamp, bell, &c.; a good machine by a good maker; 5l. 10s. Wilson, 67 King Street, Stirling.

Calomel, 2s. 9d. lb.; pulv. ipecae., 6s. lb.; crimson dye, 2s. lb.; pulv. scammon. virg., 25s. lb.; tincture press, 10s. 6d.; pulley blocks, with stout rope; counter scales, 1l. (worth 30s.); painted drawers, small nests; 1½-lb. shop jars, 1s. each; stoppered rounds, job lot, 6d. each; cigar case, 5s.; 8-ft bent case, Maw's Fig. A 18. Griffin, Chemist, Kidderminster.

On sale, cheap, mixer with 3-foot pan and steel scrapers, small piping press, pill rolls, and sundries; also turned wood pill boxes, 1½ inch diameter by ¾ deep, in cases of 53 gross, at 9d. per gross, smaller quantities 1s. per gross; also small quantity, 2 inches diameter 1½ inch deep; all the above must be cleared out and will be sold at a sacrifice. Parkinson, 39 Dover Street, Manchester.

Magnificent (presentation) microscope, by Dahmeyer, largest size, with all rack-motions throughout, 5 object-glasses, 3 eye-pieces, polariscope, achromatic condenser, parabolic illuminator, stand condenser, Sorby's spectroscopic, and other accessories, modern and equal to new; original cost over 90l.; price 40l. May be seen at Hinton's, 38 Bedford Street, Strand, W.C.

WANTED.

Gordon's extract; Brown's chlorodyne, large. Mickle, Chemist, Liverpool.

Tome's "Dental Surgery," latest edition. Lowest price to Green, Coggeshall.

Shop fittings; all descriptions purchased for cash. Natali, 184 Aldersgate Street, London.

Dental engine, in good condition; state lowest cash price. "Chemist," 6 Forest Hill Road, S.E.

Dental lathe, vulcaniser, and thermometer, pin-flasks, dental chair, dental lamp and reflector, spittoon. Garry, Tulse Hill, S.W.

A good second-hand still, in perfect working order. State size and price to J. G., care of Housekeeper, 14 St. Mary Axe, E.C.

A few desk slopes for office tables, also a nest of drawers with locks. X, CHEMIST AND DRUGGIST Office, 42 Cannon Street, E.C.

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The extent to which counter-irritants, solvents, detergents, &c. can be utilised in Plasters to produce a mechanico chemical alteration of the epidermis, thus rendering the skin more absorptive, has been largely if not entirely overlooked.

By the addition of Boracic Acid and a mild rubefacient to the regular Belladonna Plaster formula, several important advantages are secured. The fatty matter in the pores is dissolved by the detergent action of the former, and the glands are expanded and stimulated by the counter-irritative action of the latter, by which means not only is a larger proportion of the medicinal element of the Plaster absorbed, but the therapeutic effect is both increased and more rapidly obtained.

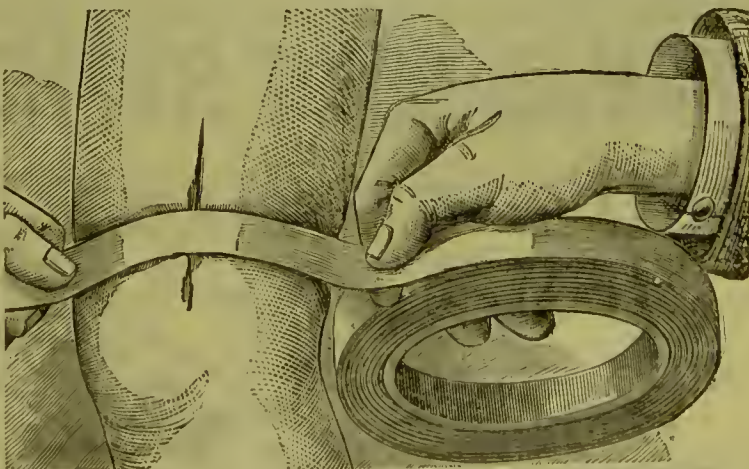
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The ammonium chloride is used to make the solution permanent so that the corrosive sublimate will not be precipitated by the organic matter usually contained in water. Each Tablet contains the requisite amount of corrosive sublimate to make a solution of 1-1,000 when added to a pint of water.

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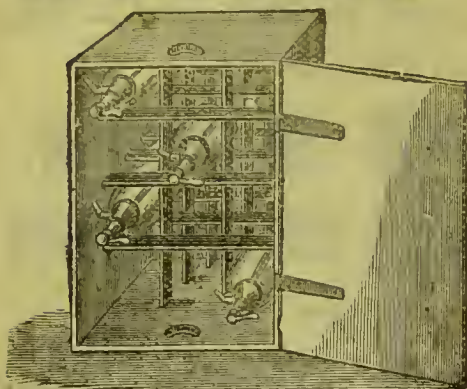
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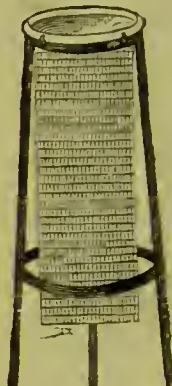
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(NEW CROP)

Direct from the Manufacturers!!

FOR very many years past we have been able to offer to the Trade Essence of Lemon of exceptional quality, such as could not be obtained through other sources.

Two members of our firm, at various periods, have spent considerable time in the country of its production, in order to arrange for its being made especially for us. In fact, some twenty years ago, when we first introduced our "Speciality" quality, good Essence was unknown in the English Market. We have, however, never ceased studying the question of how we might still improve our position in this article, and have at last decided to **MANUFACTURE IT OURSELVES ON THE SPOT!** It is our pleasure therefore to be able to announce to our friends, and the Trade generally, that we have established works in Messina, Strada Antico Cimitero, for the manufacture of Essences Lemon, Orange, and Bergamot, and that we have already commenced operations; our Mr. A. W. BUSH is now in Messina superintending the manufacture.

We are now placed in the **unique position** of being able to offer the above Essences **absolutely pure**, and **guaranteed made from the finest** selected fruit only. We shall, of course, also continue to offer good commercial qualities as heretofore. We have received advices of first shipments, and any orders entrusted to our care can be forwarded immediately on arrival.

We take this opportunity of mentioning that Ess. Lemon made from the early fruit is superior to that made from the fruit gathered later in the season. We should therefore advise our friends to make contracts for forward delivery immediately, for in such cases we shall be able to hold the early Essence in stock for them.

In consequence of our Branch Establishment in Messina we shall be exceptionally well placed; and, although the market for new Essences is in no way easier, still, by reason of our position we have been enabled to make **AN IMPORTANT REDUCTION IN OUR PRICES.**

Our advices state that the market is very firm for all Essences, and a rise in prices probable, we should advise our friends to make contracts early. Should any of our clients desire it we can execute orders direct from our works in Sicily.

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ARTILLERY LANE, LONDON.

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ESSENTIAL OILS, COLOURS,
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ELEGANT SYPHONS. Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

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SOLE INVENTORS AND MANUFACTURERS:

NEWBALL & MASON, MANUFACTURING CHEMISTS,
PARK ROW, NOTTINGHAM, ENGLAND.

HAYWARD TYLER & CO.

SOLE MAKERS OF THE
HAYES-MACDONELL
STEAM BOTTLER.

Syrups, Fills, and
Corks
60 to 70 dozen
per hour.

SHOWROOMS—
84, 85 WHITECROSS
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DAHL'S DYSPEPSIA CAKES,
For Indigestion and Constipation, 1s. and 2s. 6d. per box.

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Specially for Children, 2s. per box.

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BY SPECIAL
H.R.H. THE DUKE OF
ROYAL



APPOINTMENT TO
CONNAUGHT AND THE
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BOURNE WATERS.

THE PUREST IN ENGLAND.

R. M. MILLS & CO., BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,
LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

Special attention is invited to our manufacture of

LITHIA WATER.

Each Bottle contains an average dose of Carbonate of Lithia—
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THE LATEST SPECIALITY—the Celebrated Artesian Bourne Water in
Pints and Quarts for Table Use.

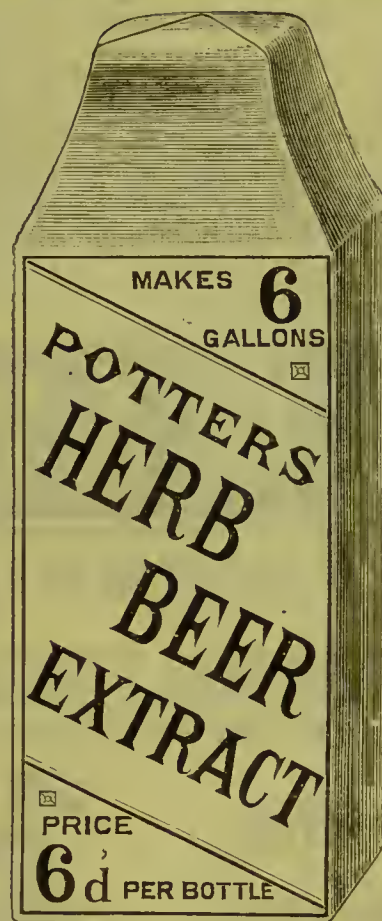
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Agents appointed.

Messrs. INGRAM & ROYLE, 52 Farringdon Street, Wholesale Agents for
the sale of our Waters.

BEST IN THE MARKET.

A GENUINE
EXTRACT OF HERBS
FOR PRODUCING
A SPLENDID
NON-INTOXICATING ALE



PRICE
3/6
PER DOZEN.

PRICE
3/6
PER DOZEN.

Showcards, Handbills, Puzzle Cards, &c., with all
orders.

May be had also in 6d. Bottles, with Customers
name on labels and wrappers, in 2-gross lots, 39s.
per gross, carriage paid. IN BULK, 10d. per lb.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES

To be obtained through any Wholesale House, or of
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POTTER & CLARKE,

WHOLESALE BOTANIC DRUGGISTS,

75 WESTON STREET, LONDON, S.E.

TO AERATED WATER MANUFACTURERS

HAY'S

SOLUBLE ESSENCES

REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

Honourable Mention: International Food Exhibition, Agricultural Hall, London, Oct., 1880. Gold Medal: Soc. of Arts, Paris, 1883

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A Pure Essence of the Finest Ginger.
Trade Price 5/ per lb.; 12 lbs. and upwards, 4/6.

HAY'S FORTIFIED ESSENCE OF JAMAICA GINGER,
For First Quality Ginger Ale.
Trade Price 5/6 per lb.; 12 lbs. and upwards, 5/.

HAY'S GINGER ALE EXTRACT,
For Second Quality Ginger Ale.
Imparts Pungency, Colouring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma.
Trade Price 4/6 per lb.; 12 lbs. and upwards 4/.

HAY'S GINGER ALE ESSENCE,
For Third Quality Ginger Ale.
This Essence makes a beverage that is unsurpassed by the so-called finest Belfast Ginger Ale.
Trade Price 9/ lb.; 12 lbs. and upwards, 8/6.

THESE ESSENCES
Have obtained the Highest Testimonials from all the Medical Journals, and from the Principal Trade Journals in this and other countries.



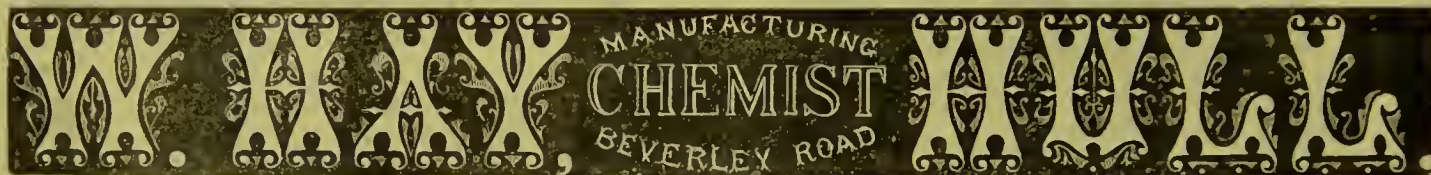
For ORANGE, VANILLA, and all other Essences,
SEND FOR PRICE LIST.

HAY'S HOP ALE ESSENCE,
For the manufacture of the Finest Aerated Hop Ale. This Essence is made from the choicest Hops grown, and is unrivalled for its peculiarly fine Hop Flavour and Aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer.
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No. 1. Highly Concentrated.
Trade Price 8/6 per lb.; 2 lbs. and upwards 8/.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS;
No. 2. Makes an exquisitely fine Lemonade.
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HAY'S LEMON FLAVOUR.
Imparts to Lemonade all the Fine Aroma and Flavour of the choicest Lemons.
Trade Price 5/ per lb.; 12 lbs. and upwards 4/6



JEWSBURY & BROWN'S

(MANCHESTER)

SPARKLING TABLE WATERS,

UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
SELTZER WATER.
POTASH WATER.
LITHIA WATER.
SIMPLE
AERATED WATER.



LEMONADE.
GINGER ALE.
QUININE TONIC.
GINGER BEER.
ROSEHOUND BEER

EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."

FRANCIS JONES, F.R.S.E., F.C.S.
"On the whole, I have no hesitation in stating that your Aerated Waters are of highest standard of purity which is practically attainable."

LOUIS SIEBOLD, F.I.C., F.C.S.

* B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination.

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YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each

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The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s., and 5s. Tins.

GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each

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Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

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Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

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Makes the Best Ginger-Beer. Packets, 3d. and 6d.

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Make a Delicious and Nutritious Jelly. In ½- and 1-pint boxes, 3d. and 6d. each.

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AND

DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

TYRER'S SAUCES

GOOD
VALUE

AND

"BOROUGH" KETCHUP

THE GIANT 1d. BOTTLE OF SAUCE.

LARGEST IN THE TRADE.

In Half-Gross Boxes, at 6/8 per Gross.*

"BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE
OR READING SAUCE.

1d. Sample Bottles, dozen parcels	per gross 6/	extra quality 6/
½ gross boxes	6/8	8/
1d. Giant Bottles, dozen parcels	8/	8/
½ gross boxes	8/8*	8/
½-Bottles (flat or round), reputed ½-pint ..	18/	24/
½-Bottles (flat or round), reputed pint ..	28/	32/
½-pint Imperial Round Stoppered Bottles ..	30/	38/
1-pint Imperial	50/	60/
12½-gallon Casks (casks free).. ..	each 20/	32/

ROYAL CAFÉ SAUCE.

In 8-oz. square stoppered bottles, 48/ per gross.

A rich, fruity sauce of fine flavour, and worth especial attention, as being the most saleable in the market.

Samples of any kind Sent Free of all Cost by

PETER TYRER,

The "Borough" Ketchup and Sauce Maker,

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SCOTCH AGENCY: 113 WEST NILE STREET, GLASGOW.

Also Sold by W. & C. PANTIN, Upper Thames Street, LONDON, E.C.

BURGOYNE & CO., 18 Coleman Street, London, E.C.

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CHAS. SOUTHWELL & CO'S SUMMER DRINKS, 1889.

PERSIAN SHERBET.

Per cwt.	53/0
1-lb. tins, per dozen	6/8
2-lb. " "	12/9
4-lb. " "	25/0
6d. bottles " "	4/4
Pink Sherbet ½d. per lb. extra.	

GINGER BEER POWDER.

Per cwt.	60/0
1-lb. tins, per dozen	7/6

LEMON JUICE.

Reputed pints, per dozen	3/3
" quarts, "	5/6

LIME JUICE.

Reputed pints, per dozen	4/6
" quarts, "	2/0

LIME JUICE CORDIAL.

Reputed pints, per dozen	4/9
" quarts, "	8/0

CITRO TARTRATE,

commonly known as

CITRATE OF MAGNESIA.

	No.1.	No.2.
Per cwt.	85/0	70/0
" lb.	9½d.	8d.
1/0 bottles, per dozen	5/0	—
1-lb. tins, "	10/9	9/0
2-lb. " "	20/6	17/0

FRUIT SYRUPS.

4/6, 6/0, and 8/0 per dozen.

LEMON SYRUP.

4/3, 5/6, 7/0 per dozen.

All the above are of our own preparation (under the superintendence of a duly qualified Analytical Chemist), and purity is guaranteed.

CHAS. SOUTHWELL & CO.

DOCKHEAD, LONDON, S.E.



ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Company's Extract of Beef, Extract of Malt, and sound Port Wine.

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).
December 15, 1888.

Wilton Fever Hospital, Salford, September 2nd, 1888.

Dear Sir,—I am in receipt of the samples of Meat Wine you sent to me. I was so pleased with the results obtained from it that I have obtained a further supply, and have given it a rather extensive trial. I have found it invaluable as a medicine in the treatment of Enteric and Scarlet Fever sufferers from these diseases rapidly improving in strength and weight under its influence. I think the combination a very happy one.

To B. ROBINSON, Esq.

I am, dear Sir, faithfully yours,

JOHN MULLEN, Resident Medical Officer.

PREPARED ONLY BY

BENJAMIN ROBINSON, THE LABORATORY, PENDLETON, MANCHESTER.

N.B.—A Sample Bottle sent FREE on receipt of Professional or Business Card.

Introduced 1855.]

ROBINSON'S CONCENTRATED WATERS.

[Introduced 1855.]

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They will keep good any length of time in any climate.



Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 6/ lb.	Aqua Foeniculi, Concent., 4/ lb.	Aqua Pimentæ, Concent., 4/ lb.
" Anisi " 4/ "	" Cassia " 4/ "	" Menth. Pip. " 4/ "	" Rosæ " 8/6 "
" Camphoræ " 4/ "	" Flor. Aurant. " 8/6 "	" Ang. " 6/ "	" Rosæ Virgin. " 10/6 "
" Carui " 4/ "	" Flor. Samhol. " 8/6 "	" Virid. " 4/ "	

The above are put up in Bottles of 1/2 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.

From the LANCET, July 15, 1882:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Aq. Anethi, Anisi, Cinnam. Ver., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopoeia. They are excellent in quality, and will be very useful, especially in country practice.

Wholesale Agents: HEARON & Co., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.
B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER.

HASSALL'S LIEBIG'S & MALT WINE

Made of Choice Port Wine, Liebig's Extract of Meat and Extract of Malt.

ARTHUR HILL HASSALL, M.D., London, and E. GODWIN CLAYTON, F.I.C., F.C.S., say:—"The results of our Analysis have been of a very satisfactory character, and we are enabled to pronounce this a valuable and very good preparation, possessing an agreeable vinous flavour. The amount of combined phosphoric acid present is large, and the valuable characteristic constituents of Extract of Meat, in combination with Port Wine of good quality, and Extract of Malt."

WM. COURINAY, M.D., &c., Medical Officer, Nenagh Disp. (late Resident Surgeon, St. Michael's Hospital, Kingstown, Nenagh, County Tipperary) says:—"To those requiring a nutritious and palatable food, its strengthening and tonic qualities are really good."

J. HALL WOODS, L.R.Q.C.P.I., &c., Penzance, says:—"It is a beautiful preparation, and commends itself alike to both medical man and patient, as a valuable stimulant and food. Combined with pepsine, the results obtained in many cases of 'Dyspepsia' is highly satisfactory."

Cost of Retail Wine Licence will be allowed on a 6-dozen order. Supplied in bulk at greatly reduced prices. Special arrangements made to supply the Wine in Bottle, with attractive Labels, Circulars, and Handsome Framed Show Cards, with Buyer's own name upon same, free of charge. List of Testimonials, copy of Analysts' Reports, and Trade Prices and Samples free on application.

HASSALL & CO., MANCHESTER; BARCLAY & SONS, LIM., & J. SANGER & SONS, LONDON.

DENAYER'S

LIQUID PEPTONES STERILIZED

Free from microbes!
Keep good for ever in all climates.
115 BISHOPSGATE STREET WITHIN, LONDON, E.C.

DENAYER'S PEPTONATE OF IRON. A bland, non-irritating and most easily assimilable ferruginous preparation. For debilitated constitutions, children, and aged people.

DENAYER'S PEPTONE OF MEAT. A powerful restorative for all ailments of the stomach, stimulates general nutrition. Is retained when the stomach rejects all other food. Pleasant to taste. Of all Chemists and Wholesale Houses.

BOVRIL

IN THE "LANCET" OF NOVEMBER 11, 1865,
BARON LIEBIG SAYS:—

"Were it possible to furnish the market at a reasonable price with a preparation of meat, combining in itself the albuminous together with the extractive principles, such a preparation would have to be preferred to the Extractum Carnis, for it would contain all the nutritive constituents of meat." Again—"I have before stated that in preparing the Extract of Meat, the Albuminous principles remain in the residue, they are lost to nutrition, and this is certainly a great disadvantage."

"**BOVRIL**" contains the albumin and fibrine in the most perfect possible form, and to those who know the requirements of the human system and the constituents of food, it will be apparent that this albumen and fibrine is identical with what the body requires for recuperation, and that as a perfect form of concentrated nourishment it must supersede any animal aliment at present known.

"**BOVRIL**" has solved the problem of the great German Chemist
"**BOVRIL**" is Baron Liebig's ideal realised.

OFFICES:—30 Farringdon Street, LONDON.

MILK IN POWDER

PREPARED BY THE SWISS MILK CO., ST. GALL, SWITZERLAND.

UNSWEETENED OR SWEETENED.

The cheapest, purest, and most nutritious of all similar productions.

The Lancet says:—A very interesting and valuable preparation.

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The Medical Press says:—A milk which is with difficulty distinguished from fresh cow's milk.

London Office, 61 Mark Lane, E.C.

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CIGARS & CIGARETTES.

M. & R. PEACOCK,
Tobacco, Cigar, & Cigarette
Manufacturers,
KINGSLAND RD., LONDON, N.E.

Sole Manufacturers of the Celebrated
Brands—

"**ROYAL CHARTER**"

AND

"**UPPER CRUST.**"

Sold in Packets only.

Those who deal in these Goods, or intend doing so,
should write to the above Manufacturers for
Price List.

WILKINSON'S COMPRESSED HOPS

Best Hops compressed into small parcels of one pound and half-pound, and sent out in cases containing 30 lbs. each. These hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time. They are introduced to the public to enable them to make their own HOP BITTERS, YEAST, HOME BREWING, and numerous other purposes. Full particulars given in each packet. Samples and Prices sent on application to

A. WILKINSON & SONS, 37 Canning Place, LIVERPOOL.

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself.

Dealers in every description of Isinglass.

"RAMORNIE."

LIEBIG'S

Extract of Meat.

As supplied to the War Office.

1-lb. Jars.....per lb.	6/2	per doz.	74/0	2-oz. Jars.....per lb.	7/0	per doz.	10/6
1-lb. Jars....."	6/4	"	88/0	1-oz. Jars....."	7/8	"	5/9
4-oz. Jars....."	6/7	"	18/8	1-oz. Jars....."	8/0	"	3/0

Write for Detailed Price List to the Australian Meat Co

IN "BULK" ON APPLICATION.
and 11 Finchchurch Avenue, E.O.

6 lbs Carriage Free.

DRUGGISTS' CONFECTIONERY.

ROBERT GIBSON & SONS,

Medicated Lozenge Manufacturers,
CARLTON WORKS, ERSKINE STREET, HULME, MANCHESTER,
 1 Australian Avenue, London, and 44 Alter Wall, Hamburg.

GIBSON'S SUPERIOR BOILED SUGARS

Have gained a High Reputation everywhere. **FOR EXPORT TRADE.** They are put up in 1-lb., 2-lb., and 5-lb. Bottles. Packed in Casks or in 1-doz. Cases as required, and delivered F.O.B. at any Port in England. These Sweets are absolutely pure. We specially recommend

Lime Fruit Tablets, Everton Toffy, Mixed Fruit Drops, Cough Drops, Raspberry Drops, Lemon Tablets.

CACHOU PEARLS,

Musk, Rose, Mint, and other Flavours. In 1-lb. White Glass Bottles. Bottles free

COMPRESSED CHLORATE OF POTASH PELLETS, SACCHARINE PELLETS,

And PELLETS of every description, put up in 1-lb. White Flint Glass Bottles, with Boxwood Top Corks. Bottles not Charged.

HIGH-CLASS LOZENGES

OF EVERY DESCRIPTION.

Chlorodyne Cough Lozenges, Chlorodyne Jujubes, Peppermint Lozenges,

In every variety of size and strength. Curiously Strong, and Multum in Parvo Mints give the utmost satisfaction
 Medicated Lozenges of Pharmacopœia Strength.

DIGESTIVE TABLETS. VOICE AND THROAT LOZENGES for Singers and Public Speakers.

ORIGINAL SUGAR WORM CAKES

Have an immense sale, both at home and abroad; will keep in any climate, and give entire satisfaction. Put up in Tins containing 3 doz., 6 doz., and 12 doz. cakes.

THROAT HOSPITAL LOZENGES

(As per T. H. Pharmacopœia).

All Lozenges are sent out in 2-lb. and 4-lb. Bottles (bottles free), but allowed for if returned.

PROPRIETARY LOZENGES CAREFULLY PREPARED, STAMPED, AND CUT TO ANY SIZE OR SHAPE.

PRICE LISTS SENT ON APPLICATION.

E. C. RICH COMPANY, Limited, Agents, United States,
 AND
Mr. THOS. LAKEMAN, 34 Pitt Street, Sydney, for Australia.

Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

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CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

AERTD & MINRLS

Apollinaris (Hungarian)
Aperient Water, Diamond
Mark, Friedrichshall
Apollinaris)
Barnett and Foster
Catley Abbey Mineral Water
Carter and Wright
Chemists' Aerated Waters
Association.
Ellis (Kuthlin)
Hassall and Co. (Oitric Acid
Phospho)
Hay, W.
Idris and Co.
Ingram and Royle
Jewsbury and Brown
Kimmond and Co.
Mills and Co. (Bourne)
Schacht, W., & Co. (Kronen-
quelle)
Taylor, T. and F. J.
[See GINGER ALE.]

DITTO PLANT

[See SYPHONS and ESSENCES.]
Barnett and Foster
Bratby and Hinchliffe
Favarger, H.
Guere, T.
Guere, Freres
Tyler, Hayward, and Co.

ALKALOIDS

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Lennon, B. G., and Co.
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Peake, Allen and Co.
Prosser, Taylor and Co.
Qualtrough, A. H.
Roberts (Paris, &c.)
Rooke, Tompsett and Co. (Mel-
bourne)
Soul, W. H., and Co.

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Bracher and Co. (Automatic
dettling)
Clarke, S. (Food Warmer and
Bed Tray)
Dunsford, H. (Food Warmer)
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Squeezer)
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White, A., and Sons
Woolley, Sons and Co.

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Goodall, Backhouse and Co.

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Robinson and Sons
Schutze, F., and Co.
Seabury and Johnson

BATH GLOVES

Maw, Son and Thompson, S.

BEESWAX

Bowdlear, W. H., and Co.

BICARB. SODA

Brunner, Mond and Co., Lim.
Gaskell, Deason and Co.
Howards and Sons
May and Baker

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Hearon, Squire and Franel
Hewlett and Sons
Howards and Sons
May and Baker
Symes and Co.
White, Alfred, and Sons

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Drug Co.

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Newball and Mason

Hargreaves, Dr.
James, Dr. Prosser
Lewis, H. K.
Pritchett, W. E.
Whitla, W., M.D.

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Aire and Calder Bottle Co. (Ld.)
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Barrett, H. H.
Bratby and Hinchliffe
Brech's (Lim.)
Evans, Sons and Co.
Fitch, W. B., and Co.
Hearn, E. A. and Co.
Hunt, W. F. (Caps)
Isaacs and Co.
Kilner Bros.
Lang, Jonas, and Co.
Lang, Jules, and Co.
Maw, Son and Thompson
Poths, H., and Co.
Sanders, H. G., and Son
Shirley, A. W.
Toogood

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Austin and Co. (Cardboard)
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Noakes, B., and Co.
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Parmenter, J. W. & Co. Lim.
Robinson and Sons
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Dukas and Co.
Goad and Co. (Tooth)
Sutton, O., and Co. (Tooth)

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Tomlinson and Hayward

CAMPHOR

Howards and Sons
Keeno and Ashwell (Homoeo-
May and Baker (pathe)

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Evans, Sons and Co.
Ferris and Co.
Moss, J., and Co.
Squire and Sons

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Duncan, Floekhart and Co.
Evans, Sons and Co.
Hooper, B., and Co.
Maw, S., Son and Thompson
Robertson, J., and Co.

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Mellin, O. (Machine)
Sauders, H. G., and Son

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May, Roberts and Co.
Newbery, F., and Sons
Sanger and Son

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Foulkos, W. J.
Kay Bros., Lim.

CHALK PRECIP.

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Lovermore, Aug., and Co.
White, A., and Sons.

CHEMICALS

Andrae, Oscar and Co.
Bramwell and Son
Brunner, Mond and Co., Lim.
Bush, W., Son and Co.
Dunn and Co.
Fletcher Fletcher and Stevenson
Fuerst Bros.
Gaskell, Deacon and Co. (Bicarbonate of Soda)
Goodall, Backhouse and Co.
Greiff and Co.
Hill, A. S., and Son
Howards and Son (Pharm.)
Kuhn, B.
Levermore, Aug., and Co.
Lothhouse and Saltmer
May and Baker
Morris and Callard
Moss and Co.
Prank, Davis and Co.
Stern, G. and G. (Paraffine)
Smith, T. and H., and Co.
Typle and King
White, A., and Sons
Zimmermann, A. and M.

CHEST PROTECTRS

Hockin, Wilson and Co.
Maw, Son & Thompson, S.
Sanger and Sons
Solport Bros.
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Wood, V.

CHL. OF POTASH

Burroughs, Wellcome and Co.
Hooper, B., and Co.

CHLORIDE OF LIME

Government Sanitary Co.
National Chemical Co.

CHLORIDE OF GOLD

Rowland, L.

CHLORODYNE

Davenport (Browne's)
Freeman, R.
Towie, A. P., and Son

CHLOROFORM, &c.

Duncan, Flockhart and Co.
Macfarlan, J. F., and Son
Smith, T. and H., and Co.
Wright, Layman and Umney
Zimmermann, A., and Son

CITRIC ACID

Hassalls (Phospho)

COCAINE-HYDRO.

Howards and Sone

COCA WINE

Armstrong, Nelson and Co.
Evans, Sons and Co.
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Cadbury Bros
Fry and Sons
Rowntree and Co.
Scheibler Bros. and Co.
Van Houten's Cocoa

COD-LIVER OIL

Brokke and Howild
Burroughs, Wellcome and Co.
Evans, Sons and Co.
Hill, A. S., and Son
Jensen, J., and Co. (Limited)
Lothhouse and Smitmer
North Medicine Co.
Oppenheimer Bros. and Co.
Smith, T. J.
Woolley, Sons and Co.
Wright, Layman and Umney

COFFEE

Symington and Co. (Coffee Essence)

COLPSIBLE TUBES

Botts and Co.
Brooks, Peel and Co.
Saunders, H. G., and Son

COMPRESSED**MEDICINES**

Allen and Hanbury
Blyton, T. Bage, and Co.
Copal Varnish Co. (Colours)
Gibson, R., and Sons
Kerfoot, T.
Pascall, J.
Warrick Brothers

CONFECTIONERY

Blyton, T. Bage, and Co.
Copal Varnish Co. (Colours)
Gibson, R., and Sons
Kerfoot, T.
Pascall, J.
Warrick Brothers

CONCENTRATED**LIQUORS**

Evans, Sons and Co.
Fletcher, Fletcher & Stevenson

CORN CURES

Maw, Son and Thompson, S.
Rohlsun, B.
Seabury & Johson (Plasters)
Thompson, M. P.
Young, H.

COTTON WOOL

Haynes, G., and Co. (Absorbent)
Robinson and Sons (Absorbent)
Sanger, J., and Sons
Seabury and Johnson

CRESHD LINSEED

Mumford, G. S.

DENTIFRICES

Jewsbury and Brown
Maw, Son and Thompson, S.
Newbery and Sons
Sutton, O., and Co.
Thompson, and Capper
Woods, W. (Areca Nut)

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Government Sanitary Co.
Hamilton and Co.
Jeyes' Sanitary Compounds
National Chemical Co.
Seabury and Johnson
Sanitas Co.

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Warren, A. and J.
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Noakes and Co.

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Shirley, A. W.

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Darton, F., and Co.
Gent and Co.
Orme and Co.

EMBROCACTION

Clarkson and Co.
Elliman, Sons and Co.

ENEMAS

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Ingram and Son
Maw, Son and Thompson, S.
Sanger and Son
Schutze, F., and Co.

ENGRAVERS

Barker, W., and Son
Corsan, J. R. (Glass)
Harris, A. J. (Glass)

ESSENTIAL OILS

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Cocking (Japan Peppermint)
Cummock, J.
Duckworth and Co.
Evans, Sons and Co.
May and Baker
Stevenson and Howell
Syms and Co.
Treat, R. C.
Warrick Brothers
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ETHER

Duncan, Flockhart and Co. (Chloric)

Howards and Son

May and Baker

Robbins

White, A., and Sons

Woolley, Sons and Co.

Wright, Layman and Umney

ESSENCES, FRUIT**AND SOLUBLE**

Beckett, W.
Brady and Hinecliffe
Burgoyne, Burhidges and Co.
Bush, W. J., and Co.
Carter and Wright
Cummock, J.
De Carle and Son
Duckworth and Co.
Goodall, Backhouse and Co.
Hay, W.
Idris and Co.
May and Baker
Oldfield, Pattinson and Co.
Stevenson and Howell
Tyrer, P. (Anchovies)
Wilkinson and Co.
Woolley, Sons and Co.

EXTRACT, MEAT

Australian Meat Co.
Bovril (Limited)
Brand and Co.
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Liebig Co.

EXTRACTS, FLUID

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Fletcher, Fletcher & Stevenson
Hoarson, Squire and Francis
Hooper, B., and Co.
Moss and Co.
Oldfield, Pattinson and Co.
Potter and Clarke
Wright, Layman and Umney

FLESH GLOVES

Solport Bros.

FEEDING BOTTLES

Brellits, E. and Co., Lim.
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Horn, E. A., and Co.
Hockin, Wilson and Co.
Kilnor Bros.
Maw, Son and Thompson, S.
Marriot, E., and Co.
May, Roberts and Co.
Thompson, Walters, Hole and Co. (Limited)
Toogood, W.

FLY PAPERS

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Mather, W.
Tunbridge and Wright
Wilson, S.

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Doulton and Co.
Mawson, Swan and Weddell
Silicified Carbon Filter Co.

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Benger's Paucetranslated
Bovril (Limited)
Brand and Co.
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Goodall, Backhouse and Co.
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Liebig Co.
Mottershead & Co. (Benger's Food)
Nestle, H.

FORMULAE

Brooks, T.

GINGER ALE

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Kinmond and Co.
Mills, R. M.

GLYCERINE

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Kerfoot, T.
Wright, Layman and Umney

GUM

Fink (Arahic, &c.)
Knight and Co.
Levermore Aug., and Co.
Prank, Davis and Co.

GUTTAPERCHA

Duncan, Flockhart and Co.

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Brodie, J. (Imperial Hair Dye)
Cheshbrough Matz. Co.

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Newball and Mason
Oldfield, Pattinson and Co.
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Potter and Clarke (Extract of Herbs)
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Watson and Watts
Watts, J. J., and Co.

HOPS

Wilkinson, A., and Sons

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Hay, W.

HOSPITALS

Bollaghroko House
London Homoeopathic

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Fellows
Fletcher, Fletcher and Co.
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Typle and King

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Godfrey and Cooke
Maw, Son and Thompson, S.
Toogood, W.

INSECTICIDES

Maw, Son and Thompson, S.
Sanford
Shorey, J. F.
Steiner and Co.
Vegi, G.

INK [See MARKING]

Bewley and Draper
Duncan, Flockhart

KETCHUP

Tyrer, P.

LARD

Ewen J.

LEECHES

Fitch and Nottingham
Potter and Clarke

LIME JUICE

Evans, Sons and Co.
Idris and Co.
Southwell, O., and Co.

LINT

Liverpool Lint Co.
Maw, Son and Thompson, S.
Newsome, C.
Robinson and Sons
Seabury and Johnson

LOZENGES

Allen and Hanbury
Blyton, T. Bage, and Co.
Gibson, R., and Sons (Mafra.)
Hill and Son
Kerfoot, T.
Martindale, W.
Pascall, J.
Rahmes and Co.
Warrick Bros.

MACHINERY

Burroughs, Wellcome and Co.
Carter, J. H.
Goodall, E. F.
Holroyd & Co. (Limited)
McFerran, J. A.
Mellin, O. (Capsuling)
Werner and Pfeiderer

MAGNESIA

Andrae, Oscar. and Co.
Banner, E. R. (Citrate)
Dinnford
Henry, T. and W. (Calcined)
Hill and Sons, A. S.
Kerfoot, T. (Citrate)
Murray, Sir James, and Son
Southwell, C., and Co.

MALT EXTRACT, &c.

Burroughs, Wellcome and Co. (Kepler's)
Hearson, Squire and Francis
Oppenheimer Bros. and Co.

MARKING INKS

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Hickinson, J.

MEDICINE CHSTS

Day, Son and Hewitt (Veterinary)
Day and Sons (Veterinary)

MENTHOL

Al Menthol Depot, A. W.
Shirley, Proprietor
Cocking and Co.
Hockin, Wilson and Co.
Maw, Son and Thompson, S.
Shirley, A. W.

MERCURIALS

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May and Baker

METHYLATED**SPIRITS**

Burroughs, J.
Harvey, J. & W., and Co.
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Phillips, G., and Co.

METHYLENE

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Porken, Son and Rayment

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Swiss Milk Co.

MIXING**MACHINERY**

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Wernor and Pfeiderer

MORPHIA

Macfarlan, J. F., and Co.
Smith, T. and H.

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Johnson, J. H. and S. (Ess. Oil)

OILS, PAINTS, &c.

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Gregory, W. (Dovonshire Oils)
Prank, Davis and Co.
Vogeler, The Charles A.

OPTICIANS

Darton, F., and Co.
Perkon, Son and Rayment
Raphael, J., and Co.

OINTMENT BASES

Albert and Co.
Burroughs, Wellcome and Co.
Cheshbrough (Vaseline)
Green, S. (Sagleton's Eye)
Grindley (Petroleum Jelly)

PAPAIN FINKLER

Kuhn, B.

PARALDEHYDE

Zimmermann, A. and M.

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Barclay and Sons (Limited)
Beocham (Pills)
Beedzler, J., and Co.
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Dahl's Dyspepsia Cakes
Edwards, Lescher and Webb
Fennell's (Powders)
Foster & Co.

Goodall, Backhouse and Co.

Holloway (Pills and Oint.)

Kemp, W. H.

Lalor (Phosphodyne, &c.)

Lincoln (Clarke's Mix.)

Mason, W. B.

May, Roberts and Co.

Morton, H. (Powders)

Newbery and Sons.

Oil of Olivet Co.

Powell, A. E., and Co. (Moon-seed Bitters)

Roberts and Co. (Foreign)

Sequal (Limited)

Singleton's Eye Ointment

Stedman, J. (Teething Powders)

Swift's Specific Co.

Vogeler, The Charles A. Co.

Wilson, A. (Bunter's Nervine)

Wright, W., and Co.

PEPPERMINT OIL

Banner, E. R.

Cocking and Co.

PEPSINE, &c.

Burroughs, Wellcome and Co.

Claridge and Co.

Fletcher, Fletcher & Stevenson

Newbery (Lactarin)

Warner and Co. (Ingulin)

Zimmermann

PERFUMERY,**FANCY SOAPS**

Bates, F. W.
Blondau and Co.
Boelm, F.
Brecknell, Turner and Sons
Bronley, H., and Co.
Burroughs, Wellcome and Co.
Cheshbrough Manufacturing Co.
Chilswick Soap Co.
Colgate and Co.
Cook, E., and Co.
Durrant, Geo.
Ewen (Soaps)
Farina, J. M.
Foulkes, W. J.
Gelston, P., and Co.
Girard Fils
Greensill, T. S., and Son
Mack, H.
Mann, C. A., and Co.
Maw, Son and Thompson
Newbery and Sons (Berdoes')
Pears' Soap
Price's Patent Candle Co.
Quelch, H. C.
Rouse & Co.
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Woolley, Sons & Co. (Powder)

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and Pharmacy
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Orridge and Co.
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Miller, A., and Co.
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Robinson, B. (Orange, Beef
Wine)
Smith, S., and Co. (S.V.B.)**USE****LIEBIG****COMPANY'S****EXTRACT****OF MEAT.**

**** Ask for the COMPANY'S Extract, and see
that it bears Justus von Liebig's SIGNATURE
IN BLUE INK across the Label.**



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PATENTED. CONTAINS 25 PER CENT. OF PATENTED.
ALLEN & HANBURYS' MALT EXTRACT.

"A delicious substitute for Cod Liver Oil"—*Vide Dr. Tanner's Report, and The Chemist and Druggist, April 20th.*

In 1/- Bottles ...	...	...	...	9/- per doz.
In 1-lb. Bottles ...	...	...	...	22/- per doz.
In 1-lb. Tins ...	...	...	...	20/- per doz.
In 4-lb. Jars (Jars 6d., returnable) ...	...	...	...	1/6 per lb.

Of all Wholesale Houses, or of the Manufacturer,
JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.

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RED AND WHITE ROSES, The most popular Cachou in the Trade. FRAGRANT "BOUQUET" CACHOUS 

HELIOTROPE  VIOLET  ORANGE BLOSSOM  PRIMROSE 

The excellence of the perfume and the superior make of these Cachous create a great demand wherever they are introduced.
 Price 2s. 6d per lb., 5 per cent. discount. Samples on application.
 Parcels of 14 lbs. forwarded carriage paid, with a handsome Glass Show Jar gratis (fig. A, No 5, Maw's list), on receipt of P.O.O. for 33s.

RAIMES & CO., WHOLESALE DRUGGISTS. YORK & EDINBURGH.

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SPECIALLY SUITED TO WARM COUNTRIES.

THE ONLY FILTERS PERFECTED BY THE AID OF EXACT ANALYSIS.

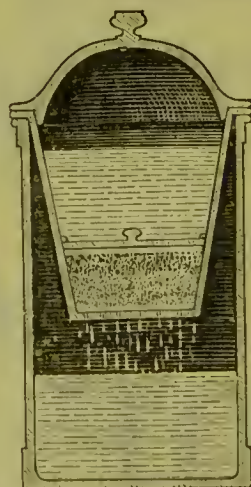
EARTHENWARE.



Plain Glass ... 4/6
 Do., with handle 5/6
 (including recharges)



Size— 1 2 3 4 6 gallon.
 Price— 14/6, 21/, 27/, 35/, 50/ each.



White, decorated 1 2 4
 Earthenware.. 35/ 45/ 65/



Engraved Glass .. 6/6
 Do., with handle .. 7/6
 (including recharges)

THE ABOVE ARE RETAIL PRICES

SIMPLE, SAFE, EFFICIENT, EASILY & ECONOMICALLY RENEWED.

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EVANS & SONS (Limited), MONTREAL and TORONTO.

Extract from the Official Catalogue of the Hastings Exhibition.

BURROUGHS, WELLCOME & CO.,

Snow Hill Buildings, London, E.C., Agents for
 ALFRED BISHOP & SONS, London; BENNO, JAFFE &
 DARMSTAEDTER, Martinikenfelde, Germany; COLGATE
 & CO., New York; FAIRCHILD BROS. & FOSTER, New
 York; FELLOWS' MED. MANUFACTURING CO., New
 York; LANMAN & KEMP, New York; LADD & COFFIN,
 New York; ICHTHYOL and PREPARATIONS; CORDES,
 HERMANNI & CO., Hamburg; ANTIPYRIN, from
 MEISTER, LUCIUS & BRUNING, Hoechst a/m, Germany;
 Dr. F. VON HEYDEN & CO.; FAHLBERG, LIST & CO.,
 Saccharin.

Messrs. BURROUGHS, WELLCOME & CO.'s Exhibit consists of chemical and pharmaceutical products introduced to the Medical profession, which are employed as well for the prevention of disease as for its cure. This firm has sought to prepare for the use of Medical men drugs in palatable and convenient form for administration. That their labours had been appreciated is evident from the general prescription of their "Tabloids" and other products by the profession generally. Chemists also find these elegant pharmaceutical products of great convenience, as they are ready for immediate dispensing, while the public appreciation is secured on account of the avoidance of disagreeable properties, the ease with which the medicines are taken, and the satisfactory results. No doubt these means have led to a considerably increased use of the medicines so prepared. The necessary prescribed quantities are taken without difficulty instead of being thrown away, as is often the case with the nauseous old-fashioned doses.

The "Tabloids" of Chlorate of Potash introduced by this firm have almost superseded the old-fashioned lozenge, in which sugar impedes the therapeutic action of the drug by dissolving first and coating the mucous surfaces with syrup, at the same time leaving an unpleasant taste in the mouth.

The "Voice" "Tabloids" of Cocaine with Chlorate of Potash and Borax are compressed so hard that they dissolve slowly, bringing in contact with the affected parts a concentrated

solution of the greatest value in irritation, hoarseness, sore throat, etc.

The "Tabloids" of Ammonium Chloride are of translucent whiteness, with surfaces polished by the compressing dies. This drug has been found most efficacious in relieving obstinate coughs which yield to no other treatment. The difficulties in the administration of Quinine are happily overcome in the "Tabloid" form, for they act as promptly as a solution or powder, with an avoidance of bitter taste, if swallowed quickly, while like the other "Tabloids" for internal administration, as Cascara Sagrada, Antipyrin, Salol, Rhubarb, etc., are more easily swallowed than pills, because their form is better adapted for the shape of the throat.

Travellers and explorers, notably the famous H. M. Stanley, recommend the "Tabloid" form for portability and efficiency before any other. H. M. Stanley's medical outfit consisted of several of the "Congo" chests fitted with the "Tabloids," and a large saddle-bag also of the compressed drugs which he took out as a present to Dr. Emin Bey.

The Hazeline exhibited by Burroughs, Wellcome & Co. is a pure distillate of Hamamelis Virginica (growing plant exhibited), which drug was employed as a cure by the aborigines of America for bruises, wounds, painful tumours, and hæmorrhages. It has been found most efficacious in the treatment of Hæmorrhoids or Piles, and as an application to inflamed surfaces, especially for bruises and stings of insects.

"Pinol" is likewise a distillate or essential principle, but of the needles of that species of Pinus Pumilio which grows just beneath the snow level of the Alps. . . . Pinol Extract, another form of Pinus Pumilio, is extensively employed in baths, for rheumatism and gout. For throat affections it is supplied in the form of Pinol Pastilles, and an antiseptic Pinol soap is also prepared, which has a very agreeable odour.

The healthy fragrance of the Alpine forest may be brought within the doors by sprinkling a few drops of it upon the carpets or curtains or on a piece of blotting-paper. Although an essential oil, it does not leave a stain, but on the other hand will readily remove spots of grease.

Pinol Perfume, an antiseptic and fragrant Eau de Cologne, is exhibited here. It is especially adapted for odourising a sick-room, or for use as a handkerchief perfume.

[Continued on page 33 (bottom folio).]

OFFICE TELEPHONE No. 6714.

MANAGER'S TELEPHONE No. 2794.

Cable and Telegraphic Day Address:—"RUMATIX LONDON."

Cable and Telegraphic Night Address:—"EDUCIBLE LONDON."



Office of
The Charles A. Vogeler Co.
 WILLIAM E. GEDDES:—EUROPEAN MANAGER.
45. Farringdon Road. London.
 E.C.

IMPORTANT TO CHEMISTS

NEW AND REVISED PRICE LIST.

EVERY Dealer in Medicine, who reads *The Chemist & Druggist*, is invited to send to us for our New and Revised Price List for "ST. JACOBS OIL." . . . Also for new, original and attractive designs in Advertising matter, which will be sent forward, carriage paid, on receipt of Chemist's Card.

The enormous Sale and popularity of "ST. JACOBS OIL," together with the attractive manner in which the Goods are now put up, should warrant the Dealer in giving as much prominence and display to the advertising matter as possible.

It is a fact admitted everywhere, that "ST. JACOBS OIL" is used more generally among the Upper Classes than any other Proprietary Medicine. . . . This is owing, not only to the intrinsic value which the Oil possesses, but to the original and dignified manner in which all of our announcements are worded. . . . It is a fact that never a word appears, in connection with "ST. JACOBS OIL" Advertisements, which is not strictly proper for every member of any family to read . . .

Our NEW PRICE LIST will place the Retail Dealer on more favourable terms than heretofore.

Continued from page 31 (bottom folio).]

Eucalyptia is the essential principle obtained by distillation of the leaves of the *Eucalyptus Globulus*. This species of *Eucalyptus* is preferred by the Medical profession on account of its superior antiseptic and general medicinal properties. It is much prescribed in Australia in the treatment of consumption or pulmonary phthisis. When taken internally it is eliminated through the lungs, but is perhaps best administered in such affections by means of the Eucalyptia-Pinol Dry Inhaler, by means of which it is brought into direct contact with the phthisical bacillus, which it destroys by its antiseptic powers. . . .

Beef and Iron Wine is a remarkable combination, possessing stimulant, nutritive, and tonic properties, carrying out the suggestion of the late eminent Dr. Parkes, of Netley Hospital. It has been found singularly useful in cases of exhaustion, general debility, and in all those cases where a stimulant is indicated. . . .

Saccharin.—This new product, from coal tar, has been pronounced one of the greatest discoveries of the age, and has been recommended in the highest terms by the Prince of Wales, Sir William Roscoe, Dr. Pavy, Mr. Spurgeon, and thousands of experts. . . . It is most conveniently used in the form of tiny "Tabloids," one of which is sufficient to sweeten a cup of tea, coffee, cocoa, or a dish of farinaceous food. It is also supplied in the soluble form in oval bottles with a tiny spoon for measure.

The attention of the medical profession is also particularly asked to the Compound Syrup of Hypophosphites, originated and introduced by Mr. Fellows of St. John, New Brunswick, the Ichthyol of Cordes, Hermann & Co., Hamburg (the new remedy for rheumatism and skin affections); "Tabloids," for Hypodermic use; Salol, Strophanthus, and Pure Terebene.

The exhibit of the Kepler Extract Company consists of the Extract of Malt and Solution of Cod-liver Oil in Malt. The Kepler Extract of Malt is pronounced by the *Lancet* to be the best known and most largely used. The *Medical Record* says: "It is the preparation of Malt which every physician now prescribes." . . . The Solution of Cod-liver Oil is pronounced by the *British Medical Journal* "as an ideal form for the administration of fat, the taste of the oil being agreeably disguised, its nutritive powers greatly increased, while the oil is rendered easy of digestion." It is not strange, therefore, that the Solution is rapidly superseding the use of the plain Cod-liver Oil, which is so offensive to most people and so indigestible to many.

Pepsin Tabloids (Fairchild).—These are a pleasant, portable, and elegant form for taking pepsin, and insure accuracy, convenience, and efficiency. . . .

Zymine Peptonising Powders (Fairchild).—One added to a pint of cow's milk serves to change the curdy character of

this fluid, and impart to it the bland, flocculent, nutritious qualities of breast milk.

The exhibit of Colgate & Co. consists of their celebrated Cashmere Bouquet Soap, which is remarkable for its unique fragrance—a discovery of the firm. Every cake is stamped with a pressure of 20 tons, which makes it so hard that it dissolves slowly, and is, therefore, an economical soap for use. The Perfume is admired by all for its exquisite and lasting fragrance.

Lanoline, being at once the blandest and most absorbable of all fats, and also an antiseptic agent, it is the best basis for a preparation like the "Toilet Lanoline" for use as a protective emollient in chapping, roughness, abrasions, cuts, and wounds; and as a nutrient, preventing eruptions and wrinkles.

Lanoline Toilet Soap—the Natural Skin Soap.—This delightful Toilet Soap is prepared from the purified fat of sheeps' wool. To this preparation of wool-fat has been given the name of "Lanoline." Lanoline is identical with the fat of the human skin and hair. Lanoline Soap softens, soothes, and invigorates, acts as a natural preservative to the skin, restoring its soft, pliable, and elastic nature and healthful surface. It is especially useful for shaving and shampooing; acting as a revivifier of the hair and beard.

The Lanoline Toilet Preparations are prepared upon thoroughly scientific principles, are pronounced by the highest authorities superior to those which are prepared from common fats, which develop acids, and sometimes cause diseases of the skin and hair.

The Lanoline Cold Cream Preparations are prepared from a highly-purified wool fat, which, unlike ordinary fats and oils, is natural to the skin and hair, and is consequently readily absorbed by them.

Lanoline Pomade being natural to the hair is at once absorbed, restoring its natural lustre and nourishing its growth; also preventing dandruff, by making the scalp clean and healthy, and guarding against premature greyness and loss of hair. It is the only natural application.

Lundborg's Perfumes have gained such popular favour in other countries that it is anticipated for them an equal appreciation in the United Kingdom by people of refinement and good taste.

In America these goods occupy pre eminently the first rank for quality above any foreign perfumes.

For Delicacy, Richness, and Permanency, Lundborg's Extracts certainly have no equal.

The rare excellence of quality, combined with the elegant and tasteful style in which they are put up, at once wins for them the highest praise.

Lundborg's Perfumes.—Edenia, Maréchal Niel Rose, Tallyho, Fascination, Lily of the Valley, Alpine Violet, Goya Lily.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

PETROLEUM "PETROLATUM" JELLY.

PURE — NEUTRAL — COLOUR, LIGHT STRAW.

To meet the large demand for a SECOND Quality of Petroleum Jelly, we are now offering "Petrolatum," a Superior Article to any other on the Market.

Put up in ...	5-lb. Tins.	50-lb. Tins (Two Tins in a Case).	Barrels, about 3 cwt. each.
Net Prices ...	46/8	42/-	35/- per cwt.

CHESEBROUGH MANUFACTURING CO., 42 Holborn Viaduct, LONDON, E.C.
OR OF ALL WHOLESALE HOUSES.

CAUTION.—"Petrolatum" is not equal to or intended as a substitute for our mark "VASELINE."

B. W. & CO.] Saccharin Tabloids. [B. W. & CO.

REDUCED PRICES.



B. W. & CO. Pure Saccharin Tabloids—

	Retail each.	Per doz.
In Crystal Glass Tubes, 25 in each...	6/	4/
" In Beautiful Crystal Glass Oval Bottles, with White Metal Caps, 100 in each...	1/	8/6
" Ditto, ditto, 200 in each ...	1/9	16/

ABOVE PRICES SUBJECT TO
USUAL DISCOUNT.



BURROUGHS, WELLCOME & Co., Snow Hill Buildings, LONDON, E.C.

Spiritus Ætheris Nitrosi.

Guaranteed to contain the proportion of Nitrous Ether directed by the British Pharmacopœia.

Æther Nitrosus and Sol. Ætheris Nitrosi.

Respectively 8 and 4 times the strength of the Spirit.

Sol. Æthyl Nitritis.

Containing 3 per cent. of Pure Nitrite of Ethyl, in Absolute Alcohol and Glycerine.

See paper by Professor LEECH on "The comparative effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

Spirit. Ammoniaë Aromaticus.

Made from Volcanic Ammonia.

JAMES WOOLLEY, SONS & CO.

Manufacturing Pharmaceutical Chemists,

MANCHESTER.

Laboratories and Drug Mills, Knowsley Street, CHEETHAM.

PRICE LIST FORWARDED ON APPLICATION.



ESTABLISHED 1859.

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Post free to every country in the world. Single copies 4d. each.

Cheques or Postal Orders should be payable to EDWARD HALSE, and crossed MARTIN & CO.

Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ:—

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The Midland Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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PUBLISHER'S NOTICE. Wholesale manufacturing firms are advised that our usual summer number will be issued on July 27. It will be exceptional in point of style, and as nearly perfect in respect of circulation to British and Colonial druggists as our lengthy experience can make it. We shall be glad to make early arrangements for advertisements in this important issue, and recommend the opportunity (which will not recur this year) for the insertion and distribution of trade-lists and circulars in the most economical and effective manner.

WE have pleasure in announcing to Continental subscribers that henceforth, by arrangement with the post offices of the various countries, subscriptions to THE CHEMIST AND DRUGGIST can be paid at any post office in Austria-Hungary, Belgium, Denmark, Germany, Holland, Norway, Russia, and Sweden at our rates, namely 10s. per annum including postal delivery to subscribers in any of those countries. Subscriptions may date from the first issue of any month.

THE WEEK'S POISONINGS.

JAMES CROMBIE (50) died in the Aberdeen Infirmary from the effects of taking sulphuric acid, which he said he took after being mesmerised, to restore himself to a normal condition.

Johanna Corthalls, a tailoress (25), of Leman Street, E., also took sulphuric acid, and died after removal to the London Hospital. She had been depressed, and was found with a bottle labelled in German, the word "gift" being added.

John Randolph Saunders, an old man, was found in the Princes Street Gardeus, Edinburgh, with a bottle in his pocket which had contained carbolic acid.

Carbolic acid was also taken by Susan Bates (33), a married woman, of 85 Howat Street, Liverpool. She was a sober woman, but her husband said she fell downstairs some time ago, and had seemed affected in her mind since.

At Horncastle, on Tuesday, the Coroner held an inquest on the body of Sarah Ann Pogson (32), the widow of a former well-known tradesman of the town. It appeared that on May 16 the deceased sent her son, aged six, to a chemist for an acid of some kind. He mistook the name of the acid required, and asked for carbolic acid, with which he was served. The deceased, without looking at the label on the bottle, took a dose of the carbolic acid. She lingered in great agony until Sunday last, when she succumbed. The jury returned a verdict of "Misadventure."

Spirits of salts was selected by Walter Else, silversmith (46), Heeley, Sheffield, as the means of death. He had been drinking heavily and was in a depressed state.

Emily Jesty (48), who was thought by her friends to be iusane, got some vermin-killer from Mr. Maggs, chemist, Yeovil, and died after taking some. Elizabeth Lewin (24), a dressmaker, of Exeter, also destroyed herself by means of vermin-killer.

Thomas William Coppinger (23), a twister, residing at Burnley, had been ill with inflammation of the kidneys for five or six weeks. Tired of the suffering and of lying in bed, he procured from different chemists, by the aid of certain little boys, three separate pennyworths of laudanum, and with the accumulated stock ended his existence.

Hugh Elder, a clerk in the employment of the North British Railway at Berwick Station, was found dead in his bed by his landlady. He, too, had purchased two separate doses of laudanum at different chemist's shops in Berwick, and had apparently taken the poison.

Laudanum was taken as a means of suicide by Mary Willows, a widow and laundress, of Lincoln, and by John Harrison, a cordwainer, of Nottingham. In another case of laudanum poisoning, investigated by the Westminster coroner, the evidence of the surgeon who supplied the laudanum was of some interest. The deceased, one John Davies, lodging at 5 Sutherland Terrace, was found dead in bed by his landlord, and a bottle which had contained laudanum was on a table by the side of the bed; a post-mortem examination showed that death was probably due to opium poisoning. Mr. Ambrose Nelham, of 117 Warwick Street, said he had lately prescribed for the deceased. A few days before deceased called at his surgery, and asked for 2s. worth of laudanum. Witness of course refused, but allowed him $\frac{1}{2}$ oz. of it. Davies called next day, and said the amount was not sufficient, and expressed the opinion, "I had better have 2s. worth, it will save my time coming for more." Witness again refused. The deceased had probably obtained another quantity somewhere else. The jury returned a verdict of "Death from misadventure."

THE MAYBRICK MYSTERY has been further investigated this week by the coroner. Important evidence was given on Thursday by Mr. Edward Davies, F.I.C., who deposed to finding arsenic in the Valentine's beef-juice previously referred to. The juice had a lower specific gravity than another bottle of the juice, in which there was no arsenic, and he assumed that a solution of arsenic had been added to the first. Mr. Davies also found arsenic in other substances in the house and in some medicine in Mr. Maybrick's office.

Metropolitan Reports.

"BUBBLES."—At the Hammersmith Police Court, on Saturday, Tod Austin, a bill poster, was charged with stealing two copies of the reproduction of Millais' celebrated picture, "Bubbles," the property of Messrs. A. & F. Pears, soap manufacturers, of New Oxford Street. From the evidence it appeared that Robert Rogers, an advance theatrical agent, had arranged with the prisoner to get two copies of the picture, for which he paid 2s. 6d. Rogers then communicated with Messrs. Pears's agent, and the prisoner was arrested. The value of the copies was 18s. Mr. Inman, for the prosecution, said the case was taken up on public grounds in the hope that the system of robbery might be stopped. The prisoner was committed for one month.

DANGEROUS PRANKS.—At the Marylebone Police Court on Monday three lads were summoned by the Commissioners of Baths and Washhouses for the parish of Paddington for placing in the water of the second-class swimming bath, Queen's Road, an explosive or inflammable substance, phosphide of calcium. Mr. Harwood, solicitor to the commissioners, explained that the phosphide was put into tins and then thrown into the water, and immediately a bright flame shot up and the whole place was polluted by the odour thrown off. Mr. Alfred Stokes, public analyst, said there was no explosion, but a bubbling and hissing sound, when the light appeared. A white cloud at once rose, and sent forth a most pungent odour. The flame would remain brilliant for fifteen or twenty minutes, and would spread in every direction. If a person swimming in the bath were to swallow any of the stuff floating about the water, he would be seriously injured, and there would be no cure for it. Two of the prisoners were found guilty and fined 10s. each, with 2s. costs, which was the highest penalty.

SOCIETY OF CHEMICAL INDUSTRY.—A meeting of the London section was held on Monday evening, in the Chemical Society's rooms. Professor Dewar, F.R.S., presided, and there was a good attendance. The first paper read was on the "Naphthalene Derivatives of Technical Importance," by Mr. W. P. Wynne, who for fully an hour occupied the attention of the audience with the constitutional formulæ of the complex compounds which he spoke about, and under this process the audience gradually shrunk to diminutive proportions. Dr. W. S. Squires also read a paper on the "Purification of Alcohol by means of Hydrocarbon Oils." In the discussion on Mr. Wynne's paper Mr. Cresswell entered a protest against the time of the society being taken up by papers which were beyond the ken of the majority of the members. He referred more particularly to complexity of the graphic formulæ; and Mr. Tyrer, in reply, defended the author, urging that such papers were of the highest importance to technical chemists. The chairman also thought so, but he ventured to suggest that they might be made more interesting to an audience by the introduction of a few experiments to demonstrate the more important facts which the authors wished to convey. Thereafter Mr. Tyrer submitted the programme of arrangements for the annual meeting to be held in London during the second week in July. The following is a synopsis of the arrangements:—Wednesday, July 10: Annual meeting, Royal Institution, 11 A.M.; Doulton's art pottery, Lambeth, 2 P.M.; Lambeth Palace, 3 P.M.; Reception, Grosvenor Gallery, 9 P.M. Thursday, July 11: River excursion, Old Swan Wharf, 10 A.M., for Saccharine Works, Hammersmith, 11.30 A.M.; Kew Gardens, 3 P.M.; dinner at Star and Garter, Richmond, 6.30 P.M. Friday, July 12: Truman & Hanbury's brewery, 11 A.M.; Cowan & Son's sugar refinery, 11.30 A.M.; A B C Sewage Works, Kingston, 11.30 A.M.; Brush Electric Light Company, 2.15 P.M.; Brin's Oxygen Company, 3.30 P.M.; Groth's Electric Tannery, 3 P.M.

MENDELEEFF AT THE ROYAL INSTITUTION.—At this institution last Friday evening Dr. Demetrius Mendeleeff, professor of chemistry in the Imperial University of St. Petersburg, was the lecturer, the subject being "An Attempt to apply to Chemistry one of Newton's Principles." Professor Dewar, who, since Professor Tyndall's retirement, conducts the social functions of the institution, read the lecture,

Mendeleeff occupying an armchair by Professor Dewar while he read. In the preliminary part of the lecture it was pointed out that the old idea of the immovability of the world had gone, and in its place we have a conviction that motion pervades all things, and this has now extended to the unseen world of atoms. We now know that the sun moves, and the so-called fixed stars move, and that light, heat, electricity, and sound are modes of motion. Before the eyes of investigators like Clark Maxwell the invisible mass of gases was filled with particles whose movements and collisions are so manifest that it seems almost possible to count their impacts and determine many of the laws of their collisions. In their invisible and apparently chaotic movements, from stars to atoms, there is a harmonious order commonly mistaken for complete rest, but there is relative immovability in the midst of universal movement. The unseen world of chemical changes is closely analogous to the visible world of the heavenly bodies. We are collecting for some future Newton facts such as astronomers had collected for Newton himself. For it is to the mechanics of chemical action we must finally look. We must get rid of the idea of statical equilibrium in molecules, and look to dynamical. Here Newton's third law of motion is probably that which will help us most. This view, Professor Mendeleeff thought, would allure many to activity, and he urged chemists to work under the banner of Newtonian dynamics. The lecture was listened to by a distinguished audience, and at the end a vote of thanks was accorded to Professor Mendeleeff on the motion of the chairman, Sir F. Abel. Professor Mendeleeff briefly replied in Russian, and Mr. Anderson translated his words. He felt much honoured in being allowed to speak of Newton's great work in the presence of such a representative gathering of English men of science.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BARNESLEY.

CATS AND DIPHTHERIA.—At the Darton Local Board meeting held on Monday, it was reported that Dr. Bruce Lawes, an inspector connected with the Local Government Board, had been in the district to inquire into the cause of the death of twenty children from croup and diphtheria, and had found that in three cases the disease had been communicated by cats going from house to house, and in more than one instance where children had died cats had died also.

BIRMINGHAM.

THE VALUE OF THE MICROSCOPE in pharmacy was demonstrated in this city. A lady had procured from the stores some pepsin much cheaper than she had been paying her family chemist, and complained of the surcharge. He obtained a specimen of the pepsin, and was soon able to demonstrate to his customer by the microscope that she had paid too much for her specimen, for it was nearly all starch. She does not go to the stores for pepsin now.

UTILISATION OF GALVANISERS' WASTE.—Mr. Turner, the demonstrator in chemistry at Mason College, claims to have discovered a process for the profitable utilisation of galvanisers' waste acids, or "pickle," as it is technically described, which promises, if successful, to relieve manufacturers of a difficulty by which they have been hampered for many years, and to convert what has hitherto been an expensive incubus into a source of substantial profit. Mr. Turner has obtained provisional protection for his process.

AN OVERDOSE OF SOOTHING SYRUP.—A narrow escape from poisoning, by an overdose of soothing syrup, occurred at Tamworth on Monday. A Mrs. O'Brien, of Tamworth, acting on the advice of a neighbour, sent for a bottle of soothing syrup for her infant child. The bottle bore no label or instructions, and Mrs. O'Brien gave the child about a tea-

spoonful of the syrup, with the result that symptoms of poisoning became manifest. Medical aid was at once summoned. For some time the child was in imminent danger, but the remedies applied eventually succeeded, and the infant recovered.

COUGH MIXTURE FOR BRONCHITIS.—The city coroner (Mr. Hawkes) held an inquiry on Wednesday into the circumstances attending the death of Elsie Maud Isaacs, aged one year, whose parents reside in Peel Street. About a week ago the deceased seemed unwell, and the mother, being of opinion that the child was suffering from whooping cough, administered some castor oil and honey. This did no good, and afterwards she gave the child cough mixture. It shortly afterwards died. Mr. Vincent Jones, surgeon, said the infant was suffering from bronchitis. The cough mixture would certainly hasten death. It was the very worst medicine that could be given to the child in the condition it was in. Mr. Hawkes, in summing up, said no blame could be attached to the vendor of the medicine, which was labelled, "This bottle is labelled 'poison' to ensure careful administration, especially in the case of infants." The jury returned the following verdict:—"Death from bronchitis, accelerated by the neglect and ignorant administration of medicine."

LEICESTER.

PRINCESS LOUISE was at Leicester on Friday last to open a Children's Hospital. According to the *Midland Free Press*, her Royal Highness, on passing through Sanvey Gate, was graciously pleased to accept a bottle of "Sea Breeze Saline" at the hands of Messrs. Butler & Son, druggists, drysalters, &c.

LEICESTER AND LEICESTERSHIRE CHEMISTS' ASSOCIATION.—We have received the third annual report of this association, which refers to its continued success, especially in the educational departments, classes in practical botany, practical chemistry, and the chemistry of the British Pharmacopœia having been conducted by Messrs. Burford, Goodess, and Shepherd. The balance-sheet shows receipts amounting to 35*l.* 16*s.* 8*d.*; 10*l.* 10*s.* of which was from subscriptions, 14*l.* from apprentices and assistants as subscriptions or fees, and the rest had been brought forward from last year. The expenditure amounted to 28*l.* 1*s.* 6*d.*, leaving a balance of 7*l.* 15*s.* 2*d.* There is also a prize fund, of which 3*l.* 10*s.* 11*d.* was spent on behalf of the students. The following constitute the council for 1889:—President: Mr. J. G. F. Richardson, F.C.S. Vice-Presidents: Mr. S. F. Burford, F.C.S., and Mr. G. Woolley. Treasurer: Mr. W. Thirlby. Honorary secretary: Mr. J. H. Shepherd. Members of council: Messrs. E. H. Butler, B. Lewitt, W. Rowe, G. Ward, and J. Young. A meeting of students to fix the arrangements for a summer botany class will be held at St. George's Chambers, Grey Friars, next Friday evening, June 14, at 8.30.

LIVERPOOL.

MEDICINE-CHEST TRADE.—This, like all other branches of pharmacy, has suffered considerably. Competition has brought down prices, and where originally the chest was sent to the chemist at the end of the voyage that the contents might be overhauled and the bottles filled at his discretion, now often only such bottles as are empty are sent to be refilled at low prices, and much of the contents of the others, which have deteriorated by age, goes a second voyage in the merchant service. One large firm of shipowners, having no less than twenty-four passenger steamers, and these for cargo only, have their own apothecary's shop at the docks, and fit their own chests. Our information goes to show that they are well done, and that a considerable saving is effected thereby; but it may be assumed that the comparison as to saving is with regard to prices as they used to rule.

The following notes of plants of interest now in flower may be useful to the botanical and pharmaceutical students of Liverpool, who may have time to do a little field-work on Bank Holiday. On the Lancashire side, in the woods at Little Crosby, may be found *Lasiræa Filix-mas*, the male fern; *Scilla nutans*, the English bluebell; in the fields—*Listera ovata* (Orchidaceæ), the twayblade, rather rare here; in ditches from Little Crosby to Hightown, *Hottonia*

palustris (Primulaceæ), an aquatic plant with pectinate submerged leaves; in hedges, *Tamus communis* (Dioscoreaceæ), the black bryony. From Little Crosby walk to Hightown, and by the roadside or in the field ditches you will find *Iris Pseud-acorus* (Iritaceæ), the yellow flag (notice the petaloid stigmas); by the road near the station, *Lamium album* (Labiata), white dead nettle, and *Cherophyllum sylvestre* (Umbellifereæ), chervil, and *Papaver dubium*, like *Papaver Rhæas*, but flowers lighter in colour; by the railway, *Diplotaxis muralis* (Crucifereæ), *Lychnis alba* (Caryophyllaceæ), and *Vicia lathyroides* (Leguminosæ). From the railway go on to the salt marsh by the river Alt, and you may find *Orchis incarnata* and *O. latifolia* (Orchidaceæ), both rare in the district, and *Lychnis Flos-cuculi* (Caryophyllaceæ) with its curious dissected petals. On the sandhills, *Taraxacum erythrospermum* (Compositæ), a variety of the common dandelion, *Euphorbia Paralias* (Euphorbiaceæ), and very sparingly on the shore *Cakile maritima* (Crucifereæ), the sea rocket, and *Eryngium maritimum* (Umbellifereæ), the sea holly. Another excursion yielding plants of interest would be to Bidston Hill, in Cheshire. Commencing at Park Road West, Cloughton, in a field, *Polygonum Bistorta* (Polygonaceæ), the bistort; in fields behind Cloughton village, *Orchis maculata* (Orchidaceæ), *Lotus corniculata* (Leguminosæ), *Potentilla tormentilla* (Rosaceæ), the tormentil, *Pedicularis sylvatica*, the lousewort, and *Rhinanthus Crista-galli*, yellow rattle (Serophulariaceæ). On Flaybriek Hill, two plants rare in this district, *Vaccinium myrtillus* (Ericaceæ), the bilberry, and *Luzula marima* (Yunaceæ). On Bidston Hill, in the plantation, *Corydalis claviculata* (Fumariaceæ), the only locality in the neighbourhood; *Pinus sylvestris*, the Scotch fir, and *Pinus pinaster* (Conifereæ); and *Pyrus aucuparia* (Rosaceæ), the rowan or mountain ash. In the smooth turf round the windmill may be found *Trifolium filiforme* (Leguminosæ), the smallest of the clovers, and the rare *Trigonella ornithopodioides* (Leguminosæ). A third excursion would be to visit the Wallasey sandhills, also on the Cheshire side, *viâ* the docks station on the Haylake side. On leaving the station, just before crossing the bridge, in some brackish ponds will be found two of the rarities of the district, *Ranunculus bandotii* and *Potamogeton flabellatus* (Ranunculaceæ and Potamogetonaceæ); in a field a little past Wallasey church, *Conium maculatum* (Umbellifereæ), the hemlock, now almost exterminated all round Liverpool. On and among the sandhills, *Anthyllis vulneraria* and *Vicia lathyroides* (Leguminosæ); *Brassica Monensis*, the Isle of Man cabbage, a rare plant, and *Arabis sagittata* (Crucifereæ); *Festuca uniglumis*, with long awns (Gramineæ), *Veronica chamædrys* (Serophulariaceæ), *Rosa spinosissima* (Rosaceæ), *Viola canina* (Violaceæ); in one spot, *Orchis latifolia* (Orchidaceæ), and with it the curious rush-like little *Scirpus paniculatus* (Cyperaceæ), and, lastly, *Hieracium pilosella* (Compositæ). A most enjoyable excursion for those who have time would be to the Vale of Gresford, near Chester, on a limestone soil. I will just mention a few of the rarer plants: *Ranunculus auricomus* and *Aquilegia vulgaris*, the columbine (Ranunculaceæ); *Astragalus glycyphyllos*, wild liquorice, belonging to the same genus as the tragacanth plant; *Lathyrus montanus* and *Vicia hirsuta* (Leguminosæ), *Solanum Dulcamara* (Solanaceæ), *Bryonia dioica*, white bryony (Cucurbitaceæ), *Valeriana dioica* (Valerianaceæ), *Lamium galeobdolon*, yellow dead nettle (Labiata), *Geum rivale* (Rosaceæ), *Tragopogon minus* (Compositæ), *Carduus nutans* (Compositæ), and *Chelidonium majus*, the greatercelandine (Papaveraceæ). Of course those mentioned are only the more uncommon or more noticeable plants, but there are numbers besides which would amply repay for any study bestowed on them.

MANCHESTER.

THE MANUFACTURE OF PICRIC ACID.—At the Police Court on Tuesday application was made on behalf of Messrs. Charles Lowe & Co., chemical manufacturers, Reddish, near Stockport, for the formal assent of the Bench to the establishment of a manufactory of picric acid at their works at Reddish. The Reddish Spinning Company, Messrs. T. Houldsworth & Co., Sir W. H. Houldsworth & Co., Mr. Massey, and others in Reddish opposed the application by counsel. The assent of the magistrates to a provisional

licence, which had been granted to Messrs. Lowe & Co. by the Home Office for the manufacture of picric acid, is now necessary under the Explosives Act before the consent of the local authority can be obtained. Messrs. Lowe have for the last seventeen or eighteen years manufactured the acid in the works under the present surroundings, except that now, at the request of the Home Office, the buildings have been altered in accordance with plans and suggestions made and approved by Col. Majendie. Mr. C. Napier Hake, of London, and Professor Watson Smith, of Owens College, gave evidence as to the safety of the process of manufacturing picric acid as conducted by Messrs. Lowe at Reddish. The Stipendiary said it would be necessary for Mr. Bayley and himself to make an inspection of the premises at Reddish.

NOTTINGHAM.

NOTTINGHAM AND NOTTS CHEMISTS' ASSOCIATION.—The annual meeting of this society was held at Nottingham on May 29, Mr. W. H. Parker, vice-president, in the chair. Amongst others present were: Messrs. A. E. Beilby, J. E. Dennis, C. Fletcher, T. B. Fletcher, W. Gill, A. Middleton, A. Smith, F. Savage, and J. Wilford. The honorary secretary (Mr. W. Widdowson) read the council's annual report, which showed that the society was still carrying on in a successful manner the educational work for which it was principally formed. A course of twenty-two lectures, followed by practical demonstration, had been given at the University College during the first two terms of the session 1888-9 by Mr. J. W. Carr, B.A., F.G.S. Twenty-five students attended during the first term, and nineteen during the second. At the end of each term an examination was held, at which respectively fourteen and ten students presented themselves. The first three students in order of merit were Messrs. C. Clutterbuck, T. J. Shaw, and H. H. Boor. Eight associates or students of the association had succeeded in passing the Minor examination of the Pharmaceutical Society during the past session—viz., Messrs. H. C. Ayris, A. J. Ball, F. H. Hemming, W. Turner, H. J. Turnbull, F. Wilkinson, R. Vincent, and T. J. Williamson. A pharmacy class, conducted by Mr. W. Gill, had been held during the first portion of the session at the society's rooms. About fifteen students joined the class, with an average attendance of ten. An examination was held at the termination of this class. The first three students in order of merit were Messrs. T. J. Williamson, W. Hurd, and J. E. Jackson. The council were making arrangements for holding a course of lectures on pharmaceutical chemistry at the University College next session. They also contemplated holding a class on *materia medica*, by Dr. Haydon White, providing a sufficient number of students guaranteed to enter. The society had held a picnic at Hazleford Ferry on July 5 last year, when about fifty ladies and gentlemen were present. The annual dinner was held on December 5, when about sixty members and friends were present. A trade meeting was held at the Maypole Hotel on Wednesday evening, May 8, to discuss the Railway and Canal Traffic Act now before Parliament, when a resolution was passed condemning the action of the various railway companies. Mr. Beilby proposed and Mr. Middleton seconded the adoption of the report, which was carried. The honorary treasurer (Mr. J. Wilford) presented the annual financial report, which showed a balance in hand of 32*l.* 16*s.* A ballot was taken for the officers and council for the ensuing year, with the following result:—President, Councillor Fitzhugh, F.C.S., J.P.; vice-president, Mr. W. H. Parker; treasurer, Mr. J. Wilford; secretary, Mr. W. Widdowson; council, Messrs. C. A. Bolton, J. E. Dennis, T. B. Fletcher, W. Gill, A. Middleton, F. Savage, J. S. Radford, and R. Widdowson. A vote of thanks followed to the chairman.

ST. LEONARDS.

SEQUAH NOT ADMITTED.—A St. Leonards chemist informs us that "Sequah's van lately arrived at Hastings and St. Leonards in order to bill the town, having with it a couple of 'newly-imported' Red Indians. After a stay of two or three days they were ordered by the Mayor, by the unanimous vote of the council, to quit the towns." It would be interesting to learn by what authority such arbitrary power is given to the St. Leonard's Council.

IRELAND.

THE PROFESSOR OF CHEMISTRY in the Queen's College, Belfast, is paid a salary of 463*l.* per annum.

THE guardians of the South Dublin Union have accepted Alderman Kernan's tender for the supply of mineral and medicinal waters for the use of the pauper inmates.

RAILWAY RATES.—The Cork Chamber of Commerce has appointed a committee to arrange for the preparation of objections to the proposed railway rates.

A CHEMISTS' ASSISTANTS' ASSOCIATION has been organised in Dublin. A preliminary meeting was held last Monday to draw up a scheme. A second meeting will probably take place towards the end of the week.

THE managers of the Apothecaries' Hall, Dublin, have made arrangements to dispose by auction of their stock-in-trade of patent medicines, &c., saved from the fire which occurred recently on their premises.

MODERN PRICES.—The proprietors of the Central Drug Store, Dublin, are doing American sarsaparilla at 6*d.* per quart, and a chemist in the southern section of the city is doing a roaring trade in effervescing citrate of magnesia at 1*d.* per oz.

MR. W. H. BOWERS, pharmaceutical chemist, late with Mr G. H. Grindley, pharmaceutical chemist, Westland Row, has taken premises in Great Brunswick Street, and purposes shortly opening them as a pharmaceutical and drug establishment.

AT the Mountjoy Street School, Dublin, a few evenings since the "Black Diamond" Minstrels gave a very successful entertainment in aid of its funds. Mr. R. D. Atkinson, L.P.S.I., of Harcourt Road Pharmacy, was one of the performers, and scored a notable success by his inimitable parody on the Light Brigade.

DENIS'S DRUG DRINK.—A gentleman rejoicing in the Hibernian patronymic of Denis Hoolihan has lately announced that he is prepared to assuage the thirst of the Dublin teetotal public by selling his "botanic beer" for the modest sum of one penny per bottle. The beverage is stated to be composed of the finest herbs and drugs.

HOME INDUSTRIES.—The council of the Irish United Trades League passed at their last meeting a vote of censure on Dublin merchants who order wholesale goods from England to the disadvantage of Irish artisans. The attention of druggists and others was directed to the superiority of home-made corks over those made elsewhere.

IN HIGH PLACES.—At a banquet given last week in Dublin in honour of the Lord Lieutenant we noticed present, among other guests, Sir Charles Cameron, Sir G. Owens, and Mr. Elliott, governor of the Apothecaries' Hall, Dublin. Toasts to the medical and the pharmaceutical professions were proposed and duly honoured.

A MEETING of members and licentiates of the Pharmaceutical Society, at Coane's Hotel, Nassau Street, Dublin, is called for Friday evening, June 7, at 8 P.M., to consider the advisability of taking some action in reference to the proposed Pharmacy Act (Ireland), 1875, Amendment Bill. Messrs. A. Reynor and E. McCreery S. Hill are the conveners of the meeting.

MESSRS. LESLIE & Co., wholesale chemists, Bride Street Dublin, have obtained the contract for the supply of drugs to the North City Dispensary. In making this appointment the board expressed themselves gratified at knowing that this firm were employers of legitimate labour, and that, in addition to full compliance with the terms of the contract, they had undertaken to supply drugs on a much cheaper scale than that of last year.

OLD MEDICINE-BOTTLES.—A respectable-looking man has been going round Dublin for the past fortnight collecting as many empty medicine-bottles as he can get hold of. Although he prefers to beg rather than to buy them, he has in some places given a fair price for a quantity. Whether this is enterprise or eccentricity it is impossible to say, as he refuses to give any information as to his object.

SCOTLAND.

ABERDEEN.

INSCH.—A handsome shop and offices, with a dwelling-house above, have been erected here for the occupation of Mr. W. Macmillan, chemist.

ABERDEEN AND NORTH OF SCOTLAND SOCIETY OF CHEMISTS AND DRUGGISTS.—The usual monthly meeting was held on May 29. There was a fair attendance, and Mr. Johnston, the president, occupied the chair. A verbal report, which was considered satisfactory, was given by the deputation appointed at last meeting to call on the chemists who were not members. A report was also given by the standing committee on entertainments, regarding the annual outing. Two four-in-hands have been secured to convey the party to Paradise and back, and permission has been obtained to visit the Earl of Crawford and Balcarres' seat and observatory at Dunecht. The members will be pleased to have the company of any chemists who may be touring in this neighbourhood, and be able to join them on July 3. Communications may be addressed to Mr. A. Strachan.

DUNDEE.

WEEKLY HALF-HOLIDAY.—The Forfar chemists announce this week in the Dundee papers that they will close their respective shops at 2 o'clock P.M. on Thursdays weekly on and after June 6. To obviate any inconvenience they will open an hour in the evening, from seven to eight o'clock.

STILL ENCROACHING.—The business of the duly qualified chemist and druggist is now being more and more encroached on. A large number of the smaller grocers now sell pills, powders, and other household remedies; and a few more herbalists have opened what they call "botanic drug stores," and in addition to dealing in herbs they do a large part of the legitimate trade of the chemist. One or two chemist's assistants, who have evidently despaired of getting qualified, now style themselves "wholesale chemists," and push the ordinary goods of their calling amongst the hucksters who retail them.

A SUNDAY CUSTOMER.—On Sunday Mr. William Millar, grocer and dealer in drugs and patent medicines (the pioneer of the "cutters" in Dundee), having accidentally to take refuge from a heavy thunderstorm in his shop when going home from church, discovered a man in his shop, and gave him in charge of the police. On the man's lodgings being searched goods were discovered, comprising Sequah's medicines, boxes of pills, large bottles of perfumes, soaps, cigars, whiskey, brandy, condensed milk, &c., to the value of over 35*l*. The man arrested was foreman warehouseman to a firm of wholesale grocers next door, and it is supposed he had obtained some keys by which he could get into Mr. Millar's premises. He was brought before the magistrate on Monday charged with the thefts, and remitted to the Sheriff.

EDINBURGH.

EDINBURGH CHEMISTS' ASSISTANTS AND APPRENTICES' ASSOCIATION.—The second botanical excursion of the season took place on the evening of Wednesday, May 29, and was attended by twenty-six members. Leaving the Caledonian Station at 8.40 for Colinton, the company had an enjoyable ramble through the Colinton Dell on the way back to town. The time was well occupied with useful practical field work, but many of the more interesting herbs and trees were not sufficiently advanced for proper study. *Ranunculus ficaria* and *Mercurialis perennis* were among the plants met with. The next excursion is to Arthur's Seat and Duddingston Loch, starting from Holyrood at 6 A.M. on June 12.

GLASGOW.

THE MEDICATED WINE LICENCE.—Mr. W. S. Galbraith states, in reply to our correspondent, that Messrs. Frazer & Green, the Glasgow Apothecaries' Company, and Messrs. Hatrick & Co. all held the 10*l* licence which is granted without the magistrate's certificate.

MR. EVAN GUNTER, a chemist employed at Nobel's Explosives Works, Stevenston, committed suicide by shooting himself last week. He had been about eighteen months in the employment of the firm, was unmarried, and had been

appointed to a better situation in Cornwall. His friends had a few evenings previously entertained him at a farewell supper at Ardrossan.

ARE WE BEING TUBERCULOSSED?—This momentous question, brought prominently before the public by a series of highly-coloured articles in the *Glasgow Herald*, has been put to a practical issue by a test case in which two dead-meat salesmen were charged with exposing for sale two tuberculosed carcasses. The result is decidedly nebulous. On one side we have an array of distinguished medical experts, who aver that, beyond diarrhoea and occasionally a slight constitutional disturbance, there is absolutely no danger in the consumption of tuberculosed flesh. On the other side there is an equally solid phalanx of experts who are as emphatic in ascribing all kinds of evil to tuberculosed meat, which they cite as a prolific cause of consumption and disease in general.

NEMESIS.—The enterprising grocer who fondly imagined that he was going to make a fortune by poaching on the druggists' covers is beginning to find that an evil example is apt to breed imitators. The latest sensation is the opening of a tea department in all the provision shops of T. J. Lipton—generally believed to be the trading name of Joseph Biggar, M.P.—a departure that has spread indignation and dismay in the grocery trade. In his widely-displayed advertisement Lipton enlarges eloquently on the enormous profits grocers make on tea, and declares that for the benefit of his customers he has decided to sell teas of all qualities at next to cost price: Finest tea at 1*s*. 9*d*., and a good wholesome article at 11*d*. per lb. The run on Lipton's teas is already phenomenal, and many grocers and tea dealers have been obliged to introduce what they call a "special cheap tea" as an offset to Lipton's blend. In one of the numerous counterblasts circulated the public are asked if they would think of going to a hatter for tea, or to a grocer for hats, an inquiry which the grocers might have put to themselves earlier. [Lipton is doing the same thing in Islington.]

MONTROSE.

A HANDSOME NEW DOUBLE-FRONTED SHOP has lately been finished for Mr. Davidson, pharmaceutical chemist, Montrose. The fittings are all in fine polished mahogany, and glass cases and mirrors are freely included, giving a brilliant effect. The ironmongery is all plated, the floor is encaustic tiles, the heating is by hot-water coils set near each window, and the whole is brilliantly lighted by Wenham lamps.

STIRLING.

A STATUE was unveiled, on Saturday last, to the memory of Daniel Ferguson, the famous bone-setter and herbalist. Ferguson was popularly known, throughout a wide area of Scotland, as the "Stirling Doctor," and wherever he went he had always crowds of patients, both rich and poor, eager to consult him. Up till a short time before his death he visited Perth and Dundee regularly. Even yet in these towns his recipes for herbs are highly prized by the holders, and are occasionally produced to be prepared. The statue bears the following inscription: "In Memoriam, Daniel Ferguson, bone-setter, died 29th June, 1888. Erected by grateful patients and friends, who appreciated his skill, benevolence, and devotion to duty."

PHOSPHATE OF SODA.—At a recent meeting of the Royal Medical and Chirurgical Society, Dr. A. Haig, in speaking of the influence of phosphate of soda on the excretion of uric acid, said that all specimens of sodii phosphas, B.P., did not act equally well. Analysis of several specimens of the salt showed that it was generally mixed with a small percentage of sulphate of soda, and this was found to be the reason for the non-activity of such specimens. The pure phosphate (Na_2HPO_4) was made by the careful combination of sodium hydrate and phosphoric acid. This, combined with 15 per cent. of sulphate, did not cause plus excretion of uric acid, and the notes showed that it caused very marked pains in the joints, due probably to retention of uric acid in them. The moral of this is that chemists should look to their phosphate of soda.

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

THE first meeting of the new Council was held on Wednesday at 17 Bloomsbury Square, W.C. Beginning a few minutes earlier than usual, with Mr. Carteighe in the chair and Mr. Bottle in the vice chair, according to custom, all the members with the exception of Mr. A. C. Abraham were present. Of the other new members Mr. Harrison sat immediately to the right of Mr. Bottle, Mr. Leigh sat four chairs to the left, between Mr. Gostling and Mr. Richardson (that is, the chair vacated by Mr. Nichol), and Mr. Martindale sat beside Mr. Greenish, Mr. Southall being his companion on the other side.

Mr. Abraham's absence was explained by the Chairman, who read a letter from the member for Liverpool, in which he stated that an engagement of long standing had taken him to Norway this month. After the minutes had been approved the Chairman read a letter from Miss Barron, acknowledging the vote of sympathy passed by the Council last month in reference to her father's death. Then the way was cleared for the

ELECTION OF A PRESIDENT.

Mr. Carteighe explaining that this would be done as usual by each member placing a cross against the name of the fellow councillor for whom he wished to vote. The Secretary accordingly distributed lists of names, and while he was doing so

Mr. EVANS said that he knew it to be the desire of some members that this election should be done openly, so far as proposing and seconding were concerned. It was only right that the members should know for whom they might vote.

Mr. CARTEIGHE quite admitted that, but, he said, each one is entitled to be President.

Mr. EVANS knew that, but it did not meet his point; there was no reason for secrecy, he contended—no reason why such and such persons should not be formally proposed and then voted upon. The system which the Council now followed was antediluvian. (Laughter.)

Mr. CARTEIGHE replied to this that it was the custom of all the societies with which he was connected to vote by ballot, and if Mr. Evans pushed his point it would be competent for any one member to demand a ballot, and according to by-law he could not be refused, so that Mr. Evans's proposal would be defeated.

Mr. WATT agreed with Mr. Evans that the election should be made openly; it was a most unusual thing in the public bodies with which he was connected to do such things secretly, and he would therefore support the suggestion that they should formally propose and second the nomination of persons for the presidency, and then proceed to ballot.

As Mr. Carteighe was again about to speak, Mr. SCHACHT rose and said that he thought it would almost be better if he said no more, and he would speak for him. This question of open voting had arisen before; there was a deal to be said for it, but personal considerations made it advisable to vote by ballot.

Mr. RICHARDSON, apparently hoping to bring the matter to a conclusion without further talk, proposed that the Council should proceed as usual to the election of a President by ballot. Mr. Gostling seconded.

"That, I suppose," said Mr. Evans, "puts an end to my suggestion." Not quite, however, for Mr. Watt proposed as an amendment that each candidate should be formally moved and seconded. This, Mr. Carteighe thought, was scarcely in order, adding that if there was anything antiquated about the plan which the Council had followed so long, the best thing would be to take it into consideration at another time. Mr. Evans's proposition had come upon them with surprise—an assertion with which that gentleman did not agree.

Mr. CROSS said he objected to the ballot, not because it was antiquated, but because it was a moral excrescence. (Laughter.)

Mr. HARRISON also was of opinion that it was not the best mode of election, for the whole Society ought to know the grounds upon which particular persons were elected, and in

moving and seconding there was an opportunity of stating the person's qualifications. But, he added, it was not advisable to begin that day; it would be better to consider the matter before the next election, and then make a change, if it was thought necessary.

Mr. BOTTLE was opposed to Mr. Evans's proposal, on the ground that it was not a good thing to discuss the merits of individuals at the Council table and in presence of the individuals. (Hear, hear.)

Mr. RICHARDSON argued for delay, because Mr. Evans had sprung a leak on the Council.

Mr. EVANS denied this. The same proposal had been mentioned for two years.

Mr. RICHARDSON: Well, it is in bad taste—a remark which was received with cries of "No, no."

Mr. MARTINDALE thought the Council should proceed by ballot on this occasion, at all events; and after some further remarks this course was agreed upon.

MR. CARTEIGHE RE-ELECTED.

The members then crossed their papers, the secretary collected them, and read out the names, the result showing that Mr. Carteighe had received 18 votes, Mr. Hampson one vote, and a blank paper was returned. The result was received with vigorous acclamation, in which most of the members indulged.

The PRESIDENT, in returning thanks, said that the office entailed a good deal of work, and he sometimes thought it would be better for him to take off the harness and join the rank and file. In that capacity he would have greater freedom of speech, for, as they knew, the views which he had often to give expression to were those of the majority of the Council, and it was possible that in any other position he might express himself differently. He would endeavour to do his best for another year, and, in an appreciative sentence, he remarked, if it was an honour to be President eight years ago, the honour was greatly increased now.

Mr. ATKINS, rising, said that on behalf of the Council he ventured to congratulate Mr. Carteighe on his re-election, and wished to say how deeply indebted the Council were that he had accepted the office. (Hear, hear.) From his heart he would say that Mr. Carteighe brought to bear upon his office the possession of unequalled parts, an absolute acquaintance with the history and traditions of the Society, and an intimate knowledge of the scientific aspects of the work and of the requirements of the trade. Moreover, he begged to assure the President that he had the absolute confidence and esteem of his fellow councillors, and he congratulated them on the result of the vote.

VICE-PRESIDENT AND TREASURER.

On a ballot being taken for a Vice-President, 16 votes were cast for Mr. Bottle, and one each for Messrs. Hampson, Richardson, and Schacht. Again there was a blank, and the same occurred in the ballot for treasurer, in which there were 17 votes for Mr. Robbins, and one each for Messrs. Hampson and Martin. Both gentlemen returned thanks for the confidence and esteem of their colleagues, Mr. Robbins hinting that he desired to be freed from the post, which he has now held for ten years. The Council, however, would not hear of this.

DR. OWEN REES,

an honorary member of the Society, has died since last meeting, and the President thought it would be fitting to send a letter of sympathy to his relatives. He mentioned that the deceased gentleman had been a warm friend of Dr. Jonathan Pereira's, and had taken a great interest in materia medica. The proposal was agreed to.

The old standing orders having again been adopted, the

RETIREMENT OF MR. W. D. SAVAGE

was next referred to by the President, who thought it would be the proper thing for the Council to put on record an expression of their opinion regarding the old Brighton representative. A letter from Mr. Savage was read, in which he mentioned that he had been twenty-eight years on the Council, a period exceeded only in the past by Mr. Peter Squire, who served twenty-nine years, and by Mr. Bottle, who has been thirty years in harness. There are on the Council walls twelve portraits of old Presidents or distinguished coun-

cillors, and of eleven of these Mr. Savage had been the colleague. In putting the following resolution the President said that it was gratifying that several of Mr. Savage's children were succeeding him in his work in pharmacy, and one of them, Dr. Savage, was adding lustre to the name of Savage of Brighton by his distinguished services to medical science.

Resolved—That the members of the Council regret the retirement of their respected colleague, Mr. Savage, from his seat on the Council, and desire to record their high appreciation of the valuable services to pharmacy and the Society by his twenty-eight years' earnest and consistent work as a member of the Council, during three years of which he filled the office of Vice-President. The Council further desire to assure Mr. Savage of their best wishes for the future, and to express a hope that his health may long permit him to take an active interest in the Pharmaceutical Society.

The VICE-PRESIDENT, in seconding the motion, said that it was a little painful for him to do so, as it reminded him of many of his old friends, now dead, from Jacob Bell downwards, with whom he had sat at that table.

Mr. WATT endorsed what had been said by the President, remarking that when he came on the Council he naturally took to Mr. Savage, a gentleman, and whom he found to be one who was much interested in the duties of his office.

The motion was agreed to unanimously.

REAPPOINTMENT OF OFFICERS.

Dr. B. H. Paul and Mr. F. Passmore were reappointed editor and sub-editor, Mr. Richard Bremridge secretary and registrar, Mr. J. R. Hill assistant-secretary (in Scotland), and Mr. E. M. Holmes, curator of the museums.

MR. SYDNEY PLOWMAN CAUSES A DEBATE.

The next business which was taken up was the election of members, associates, &c., and among the applications was one from Mr. Sydney Plowman, F.R.C.P., of St. Thomas's Hospital, who desired to be restored to the Register of Pharmaceutical Chemists, and to be re-elected a member of the Society. Some time ago Mr. Plowman became a fully-qualified medical practitioner, and on entering into medical practice in his hospital, his name was removed from the Register of Pharmaceutical Chemists, and he resigned his appointment as examiner. He now wrote that he had ceased to practise medicine, and it was not likely that he would resume practice for many years to come.

The PRESIDENT said that Mr. Plowman's request would of course be complied with, and the members of the Society would be glad to know that this distinguished pharmacist was amongst them again. (Applause.)

Mr. SCHACHT desired some more information before he could assent to the motion. Was it not the fact that Mr. Plowman was on the medical register, and did this not prevent his name appearing on the register of pharmaceutical chemists?

Mr. GREENISH put the same question, and in reply

The PRESIDENT said that was not so. The Act of 1852 distinctly said that a medical man could not be on the register of pharmaceutical chemists during medical practice. He told the Council how this arose during Jacob Bell's time, owing to a desire of discouraging medical men from keeping open shop and practising medicine at the same time. It might be that the necessity for this restriction had now passed away; but as to the legal form, it was quite clear that Mr. Plowman, having ceased to practise medicine, was entitled to be restored to the register of pharmaceutical chemists.

Mr. SCHACHT regretted that this discovery was only made now, for his old master, Mr. Savory, had to resign his position in the Society as soon as he was placed on the medical register.

The PRESIDENT explained that that was because Mr. Savory acted as an apothecary.

Mr. GOSTLING here quoted the clause of the Act, which says:—"No person who is a member of the medical profession, or who is practising under right of a degree from a university, or under a diploma or licence of a medical or surgical corporate body, shall be entitled to be registered under this Act; and if any registered pharmaceutical chemist shall obtain such diploma or licence, his name shall not be

retained on the said register during the time he is engaged in practice as aforesaid."

Mr. SCHACHT again referred to Mr. Savory's position, and differed from the President regarding it; but the latter replied that he could give "chapter and verse" in support of what he said.

Mr. HAMPSON was glad to hear of this interpretation. He knew of many cases in which pharmaceutical chemists had become medical men, and had in consequence cut their connection with the Society against their will, who would be glad to return.

Again Mr. SCHACHT emphasised the sentence in the Act which lays it down that no member of the medical profession shall be registered as a pharmaceutical chemist.

The PRESIDENT said Mr. Plowman's case was the opposite way. He was a pharmaceutical chemist before he was a member of the medical profession, and now desired to be restored to the register because he had ceased to act as a medical man. He also pointed out that Mr. Plowman's name was still on the register of chemists and druggists, and he was an associate of the Society. The motion was then agreed to, the President supplementing it by expressing the hope that Mr. Plowman would be successful in the professional appointment in Melbourne which had been conferred upon him.

Mr. GOSTLING trusted that the Act would be amended at some future time. It had been a matter of regret to him that his own son was placed in the same position as Mr. Plowman owing to the clause.

Messrs. Tanner and Saul were appointed to conduct the examination for the Jacob Bell scholarships.

LOCAL SECRETARIES.

The secretary reported that 320 towns were entitled to have local secretaries, but the members in 184 only had voted. The following towns have been added to the list: Brechin, Broughty Ferry, Galashiels, Guernsey, Ilkley, Morecambe, Swaffham; while Diss, Llanelly, Seacombe, and Uttoxeter have been removed; 323 are, therefore, entitled to have a local secretary. The secretary mentioned that 75 towns had given in only one vote.

On the motion to refer the appointment of local secretaries to the Library Committee, Mr. Richardson suggested that the question of appointing divisional secretaries in large towns should be considered, and Mr. Cross wished the committee to consider also how there could be a conference of the secretaries.

The PRESIDENT spoke of the way in which local secretaries are appointed. The principle was a democratic one, each member in the country having a vote; but it was evident from the secretary's report that people did not take the trouble to vote—the scheme was a complete failure, and it might be a question for the committee to consider how the appointments could be made in another way.

Mr. HAMPSON thought it was time to go into the matter fully. They had often heard it said that the Council should be elected on the territorial principle, but the result in regard to the local secretaries was not encouraging for that idea.

Further matters for consideration were then submitted. Mr. Schacht hinting that the local secretaries should not collect subscriptions, and Mr. Evans asking the committee to try to find out how the local secretaries take so little interest in the affairs of the Society. Perhaps, as the President said, something will come out of all these suggestions. At any rate the committee will have a month to consider them.

APPOINTMENT OF COMMITTEES.

The following committees were then arranged and appointed:—

General Purposes.—The whole Council—to meet at five o'clock on Tuesday evening, before the meeting of the Council, excepting in September, and at such other times as may be necessary.

Library, Museum, Laboratory, and House.—The President (Mr. Carteighe) and Vice-President (Mr. Bottle), and Messrs. Allen, Atkins, Cross, Evans, Gostling, Greenish, Hampson, Hills, Martindale, Richardson, Robbins, Schacht, and Southall—to meet on the second Wednesday in every month, except August and September, and at such other times as may be necessary.

Law and Parliamentary.—The President (Mr. Carteighe) and Vice-President (Mr. Bottle), and Messrs. Allen, Atkins, Hampson, Harrison, Hills, Martin, Martindale, Newsholme, Richardsou, Robbins, Schacht, and Watt—to meet as occasion may require.

Benevolent Fund.—The President (Mr. Carteighe) and Vice-President (Mr. Bottle), and Messrs. Atkins, Gostling, Greenish, Leigh, Martindale, Richardson, Robbins, Southall, and Watt—to meet the day before the Council meeting, and at such other times as may be necessary.

Finance.—The President (Mr. Carteighe) and Vice-President (Mr. Bottle), and Messrs. Abraham, Allen, Cross, Evans, Harrison, Hills, Martin, Newsholme, and Schacht—to meet on the day preceding the Council meeting, and at such other times as may be required.

Building.—The President (Mr. Carteighe) and Vice-President (Mr. Bottle), and Messrs. Allen, Gostling, Hills, and Robbins—to meet as occasion may require.

Evening Meetings.—The professors, the editor, and the curator—to assist the President in making arrangements for the Society's evening meetings in London.

Research.—The President (Mr. Carteighe) and Vice-President (Mr. Bottle), and Messrs. Greenish and Schacht.

THE FINANCE REPORT

was less interesting than usual. The receipts during May had been over 3,000*l.*, due to the balance of subscriptions from April, and a half-yearly cheque from Messrs. Churchill. The payments ordered amounted to about 900*l.*, chiefly salaries and printing expenses.

THE BENEVOLENT FUND.

Four cases were considered, and three grants of 5*l.* each recommended. A fourth applicant, the young widow of a member, had such demands upon her that the committee thought a grant such as they could give her would do her no good, therefore the case was deferred for a month.

This report was adopted, as was also that of the Library Committee. The secretary then read a letter from Mr. C. L. Peel, secretary to the Privy Council, which accompanied the following:—

Report on the Examinations held by the London Board of Examiners of the Pharmaceutical Society of Great Britain during the year ending March 31, 1889.

To the Lords of the Council.

My Lords,—The request of your lordships that I should visit the above examinations having been made towards the close of the year 1888, I was able to attend only five examinations. I have, however, had access to the records of all the examinations conducted during the year under notice, and from these the statistical information of this report has been compiled.

Preliminary Examination.

No. of candidates examined	1,393
" " who passed	733
" " " failed	660
Percentage of failures	47.4

Of the rejected candidates, 350 failed in Latin, 276 in English, and 379 in arithmetic; 304 failed in one subject only; whilst 26 failed in no particular subject, but were rejected in consequence of the fewness of their aggregate marks.

I have read a number of the answers of both successful and unsuccessful candidates, and have seen the marks awarded to them. The examination is by no means too severe, and does not prevent candidates subsequently presenting themselves at the Minor examination whose knowledge of the application of simple arithmetical calculations in pharmacy is defective. There is room for improvement in the quality of the work of the candidates at the Preliminary examination.

Minor Examination.

No. of candidates examined	852
" " who passed	384
" " " failed	468
Percentage of failures	54.9

Of the rejected candidates, 90 failed in chemistry, 29 in

botany, 67 in materia medica, 59 in pharmacy, 44 in prescriptions, and 114 in dispensing; 316 failed in one subject only; whilst 106 failed in no particular subject, but were rejected in consequence of the fewness of their aggregate marks.

The large proportion of rejections has led me to carefully study this examination. I find it to be conducted with discrimination and fairness, and the method of registering the results of each examiner's opinion is admirable. The new examination rooms are well fitted for their purpose. It is not likely that a competent candidate will be rejected; nor is it probable that any quite incompetent candidate will be passed.

Nevertheless, the examination has some defects which it may be hoped the Pharmaceutical Society will remedy at no distant date. Though the examiners form a board, each examiner acts by himself, asking questions and assessing the value of the answers without reference to his co-examiners. The examination is *viva voce*. It would be advantageous to have a paper set by the board in the principal subjects. This would discourage the attempts of candidates to adapt their answers to what they suppose to be the requirements of particular examiners.

Some candidates are nervous, and do not sufficiently regain self-possession during a brief *viva voce* examination, to whom a written examination would be a boon. Moreover, it is not desirable that a single examiner should have the power to reject a candidate in any subject without the candidate being examined by another examiner in that subject; and the two should concur in the rejection.

An extended syllabus of the subjects of examination is also desirable, so that (there being, at present, no compulsory educational curriculum for candidates) the pharmaceutical student may know to what portions of the field of knowledge his studies ought to be particularly directed.

At the examination in botany an elementary knowledge of the application of the microscope in the recognition of the more important plant structures might well be tested; and, indeed, such knowledge is necessary for the recognition of the sophistication of drugs.

It would be well were candidates examined as to their knowledge of the obligations imposed upon the chemist and druggist by the Pharmacy Acts, *e.g.*, as to the requirements of the law when poisons are sold.

Major Examination.

No. of candidates examined	108
" " who passed	63
" " " failed	45
Percentage of failures	41.7

Of the rejected candidates, twenty failed in chemistry, six in botany, and five in materia medica, twenty-three failed in one subject only, whilst eighteen failed in no particular subject, but were rejected in consequence of their aggregate marks.

Modified Examination.

Three candidates were examined, of whom one passed and two failed.

I have the honour to be, my Lords,

Your obedient servant,

May 18, 1889.

(Signed) THOS. STEVENSON.

Mr. HAMPSON said that this was a most important document, and he thought the proper course would be to receive it, and refer it to the Library Committee for consideration. He moved accordingly, and Mr. Richardson seconded.

The VICE-PRESIDENT asked what a committee would do with it. He supposed they would have to report, and he protested that it was not a proper thing to commit the Council to any proposals in this way. The document was an official one which they could do nothing with.

Mr. HAMPSON said he did not intend to discuss the report then, and would not be drawn into a discussion. He simply moved that a certain course should be adopted.

Mr. ALLEN supported the Vice-President's view. The report was complete in itself and did not require discussion. Moreover, the examiners were the proper persons to act upon it.

Mr. RICHARDSON, on the other hand, contended that the importance of the suggestions in the document required the very serious consideration of the Council.

The PRESIDENT said it would be awkward to do anything definite in this way—to arrive at any recommendations, for they should remember that there was another Government visitor, Sir Douglas Maclagan, and they did not know his views. If they came to any resolution regarding the points dealt with by Dr. Stevenson, they would have to know Sir Douglas Maclagan's opinion, as well as that of the Scotch Board of Examiners. Then it was probable that Dr. Thomas Stevenson might find reason to change his opinion after he had been longer in office. He was new to the work, the report was the result of three months' experience, and it was just as well to wait a little before taking action.

Mr. HAMPSON thought that the President's remark reflected on the Council's competence to deal with such matters, and he maintained that the Council was superior to the Board of Examiners. He saw no reason for continuing the old notion of the latter's unapproachability.

Mr. ATKINS agreed with Mr. Hampson that it was necessary in ordinary respect to consider the suggestions made by the Government official.

The PRESIDENT suggested that a copy of the report should be sent to the Board of Examiners in the first instance.

The VICE-PRESIDENT and Mr. SCHACHT pointed out that if the report was referred to a committee they would have to bring up a report upon it, and this they did not consider desirable.

The PRESIDENT pointed out that Dr. Stevenson did not want anything done just at once. The Council could take up the report later.

Mr. HAMPSON said, in reply to this, that delay would magnify the matter. He simply wanted it considered in the ordinary business way.

Mr. WATT said there were two courses to pursue—refer the report to the examiners, or let the committee take it up in the first instance. He thought the latter was the proper course to pursue.

Mr. HILLS, on the other hand, thought it unnecessary to do anything of the kind. It would be difficult to suggest reforms based on the report of a man who had only been three months in his office. His idea was that the report should be allowed to pass as a matter of course.

The PRESIDENT again referred to the difficulty of expressing an opinion regarding some matters in the report. For instance, Dr. Stevenson suggested that they should examine candidates in regard to the poisons law, and the fact was that their powers would not permit them to do that.

Messrs Hills, Martin, Allen, Hampson, Richardson, Watt, and Atkins continued the discussion, adding little to what was already said, and

Mr. SCHACHT seriously threw out the suggestion that the motion was not in order—a month's notice should be required for it. This, the President ruled, was not so.

Mr. MARTINDALE said the proper course to adopt was to get the examiners to consider the report, and see what they could do with it. The suggestions made by Dr. Stevenson were not new. There were medical examining boards with which Dr. Stevenson was connected, which followed the practice indicated in his report.

The PRESIDENT added that there were things in the report which even the examiners could do nothing with—for instance, the division of the examination; that they would require a new Act of Parliament to enforce. He knew Dr. Stevenson personally, and his views upon such matters, and he thought that the best thing to do was what he suggested.

At this point Mr. Hampson was requested to withdraw his motion, but he distinctly refused.

Mr. ATKINS having spoken,

The PRESIDENT again appealed to the meeting to consider what the report meant. There was no hurry about it. It would take twelve months to formulate any recommendations—they would have to alter the by-laws and get a new Act before they could really do anything. The fact was Dr. Stevenson was new to the work, and was full of suggestions. He moved, as an amendment, that the report be referred to the Board of Examiners. This was seconded by the Vice-President.

Mr. HAMPSON claimed the right to reply, and it transpired that all he wished to say was that in his motion he did not offer any affront to the examiners, and he altogether demurred to that view.

After some further conversation, during which Mr. Richardson confessed that the amendment pleased him as well as the motion a vote was taken, when fully a dozen voted for the amendment, and only four (Messrs. Hampson, Richardson, Cross, and Harrison) for the motion. The report was therefore referred to the Board of Examiners.

THE PHARMACY BILL.

A letter was read from a firm of solicitors asking on behalf of a private school if the certificates of such schools would be recognised in the event of the Pharmacy Bill passing.

The reply agreed upon was that a copy of the vague resolution arrived at last year in regard to such schools should be sent to the writers.

Some correspondence in regard to the railway rates then took up the attention of the Council (the Great Western Railway writing that they did not intend to increase their rates). The Council finally went into committee to consider the report of the General Purposes Committee, and this concluded the public business.

FOREIGN NEWS.

A CHOLERA SCARE broke out at Rio Janeiro lately, and with commendable alacrity (says the *Rio Post*) the municipal council opened unlimited credits at certain chemists' shops for the furnishing of physic to indigent persons. Now the chemists want their money, and the council wants the Government to settle the accounts. Verily municipal affairs are unintelligible in Rio.

WHAT is said to have been the largest order for the import of any European speciality has just been placed with a Berlin house. Twenty thousand cases of Johann Hoff's malt extract have been ordered by their American agents, the Eisner & Mendelson Company, of New York, to be shipped during the ensuing year from Johann Hoff's factory at Berlin, in semi-monthly shipments.—*New York Tribune*.

THE PHARMACIE CENTRALE DE FRANCE, one of the largest manufacturing pharmaceutical establishments in France, announces that every Wednesday, at 1 P.M., during the months of June, July, August, and September, a carriage will start from their Paris offices, 7 Rue de Fouy, to convey pharmacists to the firm's works at Saint-Denis, and thence to the exhibition.

BRAZILIAN MERCHANTS may do well to take a note of the observations of the *Rio News*, which declares that there is, perhaps, no public service in the world outside of Turkey so insatiate, irresponsible, and arbitrary as the custom house of Rio de Janeiro. If an importer contests the decision of an ignorant, irritable, self-complacent *conferente* he is then and thereafter treated worse than a smuggler, infinitely worse than the defaulter who tries to clear out with the public funds entrusted to his care.

ON May 9 a fearful thunderstorm visited the Elbe valleys between Pillnitz and Loschwitz, in the neighbourhood of Dresden, and caught the chemical works of Eugen Dietrich, at Helfenberg, flooding the buildings, and so disarranging the machinery that all business had to be suspended for two days. An apartment in which 75,000 mustard papers and about half a ton of mustard seed were being made into plasters was flooded and the whole of the materials spoilt. Twelve thousand effervescing powders were also swallowed up by the water.

THE other day, at a French Cabinet Council, a call came through the telephone for the Prime Minister. General Brugère, the Minister of War, answered the telephone, and was not a little surprised when an unknown joker called upon him to convey to his colleagues the message: "You are all a pack of thieves. Down with you! Vive Boulanger!" The police were communicated with, and the misguided joker, who turns out to be a warehouseman in the employ of M. Baczinski, chemical merchant, of the Rue des Archives, has been arrested, and now awaits his impending doom.

FARADAY AND MENDELEEFF.

THOSE who went early to the Royal Institution on Tuesday evening now and then expressed surprise at the want of eagerness on the part of metropolitan chemists to hear and see the man who has the credit of licking into perfect shape, if not discovering, the law of the periodicity of the elements. Mendeleeff, it is true, had spoken in the theatre of the Institution on the Friday previous, but this surely could not account for the meagreness of the audience up till a quarter of an hour before the lecture. Of the first score of people who came fully half were connected with pharmacy. Half-a-dozen Bloomsbury students sat in a prominent position in the front, Mr. Ince beside them to keep them in order; three lady pharmacists sat behind, and as the evening wore on we noticed many of the leading lights drop in, amongst them Mr. John Robbins, who came early, Mr. John Moss, accompanied by Mr. Whiffen, jun. Mr. Martindale was in evidence, and not far from him sat his fellow-councillor, Mr. Alfred Southall. Mr. Charles Ekin sat on a back bench, and in the front of the gallery we could see Mr. David Kemp, late of Bombay. Several examiners put in an appearance, Mr. Gale and Mr. Symons among them. Mr. R. H. Davies, Mr. H. Helbing, and Mr. A. H. Mason were also there. By 8.30 there was a sprinkling of people in the gallery, and the theatre below was comfortably filled, many ladies being present. At this time Dr. Russell, the President of the Chemical Society, accompanied by the Vice-Presidents and Council, came in, Dr. Russell taking the chair, and it was at once noticed that a play was to be acted without a "Hamlet"—Mendeleeff did not appear. In his place was his



DIMITRIUS IVANOVICH MENDELEEFF.

personal friend, Mr. Anderson, who sat on the right of the chairman, while Professor Frankland sat on the left. On the front bench were Sir F. Abel, Professors Thorpe, Crum Brown, Foster, Dunstan, Ramsay, and Dewar, Mr. J. J. Thomson (hon. sec.), Drs. J. H. Gladstone, Rücker, Brauner (Prague), and Thorne, Mr. Crookes, Mr. Ludwig Mond, and others. Sir Gabriel Stokes, P.R.S., came in as the chairman made his introductory remarks, and was taking a subordinate seat, when Professor Dewar deftly guided him to the central position, and quickly the councillors shifted to the same seat, this being an unpremeditated tribute of honour to the new baronet.

The occasion which had brought the audience together was, we need scarcely explain,

THE FARADAY LECTURE,

instituted in commemoration of Michael Faraday, ex-book-binder and philosopher, the intimate friend of Sir Humphry Davy, first Fullerian professor of chemistry at the Royal Institution—in short, one of the most notable personages of this century.

In opening the proceedings, the Chairman said it had been the good fortune of the Chemical Society to induce distinguished foreigners from time to time to lecture there. It was exactly twenty years since Dumas gave them the first Faraday lecture, and he was sure they well remembered the polished oratory of that occasion. Since then they had had the pleasure of listening to lectures from Helmholtz, Cannizzaro, Hoffmann, Würtz, and other distinguished men, and that evening they were to have a lecture from a chemist whose name was as distinguished and well known and honoured as that of any previous Faraday lecturer. He regretted that Professor Mendeleeff was not with them; his absence was most unexpected. He was sure when they knew the reason of his absence they would accord sympathy to him in his great trial and trouble. It was only on the previous night that the professor had news of the serious illness of one of his children, and as there was a question of the highest importance to be settled—the question of whether a serious operation should not be undertaken—Dr. Mendeleeff had had to leave London. Dr. Mendeleeff had some knowledge of the English language, but not sufficient to address them in the English tongue, and they had thought it quite possible that some of their audience might not be perfectly acquainted with the Russian language. (Laughter.) Consequently they had had the lecture translated, and before Dr. Mendeleeff left he went through the translation, and satisfied himself that what they were to hear was an accurate account of what his present views were in regard to the periodic law. (Applause.)

Dr. Armstrong, the senior honorary secretary of the Chemical Society, called the attention of the audience, especially that portion of it who knew little of the periodic law, to four yards of a diagram in which the elements, from the lightest, hydrogen = 1, to the heaviest, uranium = 240, were arranged perpendicularly. This is a new plan which has been formulated by Mendeleeff. Figuring the elements according to their valency in the formation of hydrides and oxides, the result is a saw-tooth-like figure, a portion of which we may here reproduce:—

Hydrides and organo-metallic compounds $RH_m R(CH_3)_m$		Salt-forming oxides $R_2 O_n$	
	H 1	1n	
	Li 7	1	
	Be 9	— 2	
3 —	B 11	— 3	
4 —	C 12	— 4	
3 —	N 14	1 — 3 — 5	
2 —	O 16		
1	F 19		
1	Na 23	1	
2	Mg 24	— 2	
3 —	Al 27	— 3	
4 —	Si 28	— 3 4	
3 —	P 31	1 — 3 4 5	
2 —	S 32	— 2 — 4 5 6	
1	Cl 35½	1 — 3 — 5 — 7	
	K 39	1	
	Ca 40	— 2	
	Fe 44	— 3	
	Ti 48	— 3 4	

This, and four times more of it, Professor Armstrong explained before he began to read the printed lecture, boldly indicating that it would help to guide the ignorant in their understanding of what was to follow. Professor Mendeleeff first paid an eloquent tribute to the memory of Faraday, and proceeded to make an able defence of the

VALUE AND SOLIDITY OF THE PERIODIC LAW.

Glancing at the chaos which existed in chemistry previous to 1850, owing to the want of a scientific system dealing with the relationship of the elements, he briefly spoke of Avogadro's law, and the work which Cannizzaro did in clearing up the seeming contradictions between it and that of Dulong and Petit, and proceeded to show that the result of

this was a clearer conception of the nature of the atom as distinguished from the molecule, thus giving a sound basis for such an hypothesis as his own periodic law. The discovery of that law he did not claim for himself. Others in the half-century or so before his discovery had made observations regarding the constancy of differences between the atomic weights of certain of the elements, but the law of octaves they had not dreamt of. Several, however, amongst them Newlands, had been before him in this field, and he gracefully acknowledged their priority without yielding his claim as the formulator of a more complete system, fit to serve chemical science for all time. Towards the end of the sixties discoveries had been made regarding the rare earths, and comparisons made between iridium and platinum, and between vanadium and chromium, which may be put down as a step to the law of periodicity. Now, wherein lies the value of this law? Mendeleeff asked, and he proceeded to speak of the relation of the constants. The mass of the atom, an hypothesis originated by Galileo and Newton, is a necessary basis of the law, and the unalterability of this is indisputable. It is now beyond doubt that chemistry cannot be a science if the individuality of the atoms is not maintained. Here the lecturer became eloquent, and, after contrasting the atomic hypothesis with Newton's law of gravitation, showing that we have advanced upon our first conceptions of the former, but on the latter we are no further forward than in Newton's day—it is a theory we cannot explain—he proceeded to speak of the density of the elements, pointing out that it is not possible to have any come between those which exist or are predicted—for instance, between silver, 108, and cadmium, 112. Many fanciful theories, or, rather, devices, have been formulated to explain the arrangement of the elements; there is, for example, Crookes's pendulum theory, which he mentioned along with some others. All these he dismissed, somewhat contemptuously, as irrational. Any theory must have a sound mathematical basis, and that, it seems, all in this department of chemistry are, with the exception of the lecturer's, peculiar in lacking. The phantom of speculative chemists—primary matter—next came in for comment, and in the lecturer's hands it received scant hope of a future, whatever its past may be. Of course there no place in the periodic system for *helium*, the primary matter, and if anyone happened to discover it, short would be the life of the system. But, says Mendeleeff, the only place where it can be found is in the sun, and its existence in the solar spectrum is as problematical as the primary matter itself! After enlarging upon this subject the further assertion was advanced in proof of the value of the periodic law that it is not a conception, but is based upon actual experiment. The atomic weights, the vapour densities, the valencies, and so forth have all been determined in the laboratory, not by himself, but by men of renown in the civilised countries of the world. It is no conception, therefore, but an arrangement of proved facts. The application of the law to the carbon compounds was then referred to, and the work of Carnelly and others in this field was examined at some length, the lecturer expressing the belief that what had been done in this department seemed to show that the law had a wider application than he imagined; but he expressed the hope that no conclusions would be arrived at which were not founded upon reliable experiment. This finished the first part of the lecture, and in the second Mendeleeff spoke of

WHAT THE PERIODIC LAW IS CAPABLE OF.

In the first place it had enabled him to tell us that there exist undiscovered elements. Here Dr. Armstrong pointed out the gaps on the perpendicular diagram for fourteen elements between cerium and osmium, five between bismuth and thallium, and the other gaps, the idea creating a laugh; but the audience sobered down at the mention of the three gaps which have been filled up since Mendeleeff made the gaps, or, rather, since he told us that Nature has something to fill them. His hypothetical eka-aluminium has been found in gallium, his eka-boron in scandium, and his eka-silicium in germanium. In every respect his prophetic descriptions of the characters of these elements have been fulfilled, although at first chemists thought the facts disagreed with the predictions. This was true, especially of gallium, the discoverer of which made its density to be 4.7, whereas Mendeleeff said his eka-aluminium would be 5.9, and it actually happened

that when a re-determination was made with a purer material the density was found to be 5.906. This statement naturally fetched a round of applause. The next point in which the value of the periodic law is shown is in its capability of telling us whether the atomic weights assigned to the elements are correct or not. So far it has had the effect of modifying the atomic weights of several elements. The lecturer gave several examples of this, but beryllium will serve to illustrate his statement. Mendeleeff placed it in his system between lithium and boron, at a time when the accepted atomic weight did not justify this procedure, Berzelius's determination of that point resulting in the figure 13.6. But for the sake of the other characteristics of the metal, he placed it where he did, instead of between carbon and nitrogen, the place that its atomic weight would entitle it to. Obviously this fact was taken as a disproof of the law, yet, as time went on, chemists have attacked the element, with a view of removing the doubt. Nilson and Petterson at first supported Berzelius, but they have since had reason to change their minds, and they now substantially agree with Reynolds and Carnelly that the weight is 9.08—practically Mendeleeff's figure—9. The atomic weights of thorium, uranium, tellurium, titanium, osmium, iridium, platinum, and gold have all been redetermined mainly because of the lecturer's calculations, and predictions, and the results confirm the latter. In short, the law has shown where errors exist, and in all work on atomic weights it has been found good for testing results. In the next division of this part of the lecture Mendeleeff spoke of the application of his law to our knowledge of the oxide-forming elements, showing the importance thereof in the proof of the theory of atomicity as expounded by Dalton. Atoms, he said, combine with not more than four atoms of hydrogen to form hydrides, or with six atoms of oxygen to form oxides. This is exemplified in the diagram which we have mentioned. It is found that this property has a certain periodic relation, and it has a direct influence upon our conceptions of the constitution of compounds, controlling valency. Here the lecturer gave another of the humorously contemptuous passages which were scattered pretty freely throughout the discourse, speaking in this case of complex formulæ, which some chemists gravely give out as representing the molecule of the compound. He believed in no such speculations—chemistry is not a thing for speculation unsupported by experimental results—and the smile which flickered over Professor Dunstan's face recalled the little winter controversy which excited the pharmaceutical world lately. It was evident from the manner in which Professor Armstrong read the lecture that he had skipped many passages, and we have perforce followed his example. With the hydrides and oxides the arguments for the Periodic Law, so far as the audience was concerned, came to an end, and in the final passages Mendeleeff again referred to Faraday's work, and expressed his appreciation of the honour which the Chemical Society had done him in asking him to deliver the lecture.

After the hearty applause had subsided the Chairman called upon

Dr. Frankland to propose a vote of thanks to the lecturer. Dr. Frankland said they had all listened with the greatest pleasure and interest to a magnificent description of the grand scheme of the periodic law by the man of all others who had done most to develop and bring to its present state of advancement the law of periodicity. It was to Mendeleeff that they owed not merely the development of this law into an interpretation of a great number of chemical phenomena, but they owed it to him that he had brought practically before them that evening the prospects of that law and the future history which it was likely to have. They must say at the present moment that the law of periodicity had not been investigated to its ultimate cause. They did not really know what it was that was responsible for this periodicity in the recurrence of properties of the elements. This was the great discovery which had yet to be made; but it loomed in the immediate future, and he trusted that the discourse to which they had listened would turn the attention of many of their younger chemists to the further investigation of this law. He had much pleasure in discharging the duty they had put upon him by proposing a very cordial vote of thanks to Professor Mendeleeff, whose absence on that occasion they so much deplored. (Applause.)

Sir Frederick Abel, who seconded the motion of thanks,

ventured to refer for a moment to Professor Mendeleeff, the man. Those who had come into contact with him, who knew him, felt how worthy he was personally to receive the special honour of following the distinguished Faraday lecturers who had gone before. A man more simple-minded, more honest in his work, and more clear in the expression of that work, a man more bold in conception and more modest in putting forward his views, could scarcely have been brought before them. (Applause.) Having regard to his admirable discourse that evening, and having regard to the philosophic discourse listened to by the members of the Royal Institution last Friday, he could not but feel that in coming to them Dr. Mendeleeff had done them an honour. They must regret and deplore deeply that it had not been in their power to keep him longer among them, for they should have liked to have shown him something more of their social side.

The Chairman said he had hoped to have had the pleasure of presenting to Dr. Mendeleeff the medal and the purse in which they were in the habit of expressing their gratitude to the Faraday lecturer. Since Dr. Mendeleeff, however, was absent, he asked that gentleman's friend, Mr. Anderson, to receive and transmit the tokens. They should also ask that there might be conveyed to Dr. Mendeleeff and to Madame Mendeleeff their deep sympathy touching the great trouble which had come upon them.

Mr. Anderson wished he enjoyed the eloquence of his friend Mendeleeff in the task imposed upon him of returning thanks. If Dr. Mendeleeff could have spoken in the Russian language they would have seen another side of his various character, but unfortunately they knew the reason why he was not there. He had been a witness to the agony which Dr. Mendeleeff suffered when he received the terrible telegram on Monday evening announcing the danger in which his child lay, and stated that the only means to rescue it was a capital operation which in itself was something terrible to contemplate. Dr. Mendeleeff, while feeling his duty as a parent, felt also the disappointment that he knew would be caused by his leaving London, and he charged him (Mr. Anderson) to express the extreme regret in which he was obliged to leave them so soon. Dr. Mendeleeff repeated again and again the phrase "Man proposes but God disposes"; when he saw him in his suffering he could not help reflecting that there was a man who by the periodic law could foretell the existence of unknown elements, but who was yet unable to foretell what would occur in the course of his short visit to London. Nothing he could say could equal the thanks which Dr. Mendeleeff would have expressed for the warm reception that his lecture had that evening elicited.

A vote of thanks to the Royal Institution for the use of the lecture theatre concluded the proceedings.

The dinner to Professor Mendeleeff which was to have taken place on Wednesday evening was postponed, but Dr. Russel's soirée in the Grosvenor Gallery will be held this evening (Friday) at nine o'clock.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

TRICHINOSIS AT LILLE.—Quite a number of persons at Wazemmes, in the Lille suburbs, recently became violently sick after eating ready-cooked pork-meat (*charcuterie*) procured at Invers's pork-butcher shop, 40 Rue de Flandres, Lille, and several deaths have resulted. As, owing to the Havre poisoning cases excitement, the population became almost panic-stricken, a medical commission was sent over to investigate the affair. They have reported the epidemic to be simply one of trichinosis, an affection, by the way, extremely rare in France.

MILITARY PHARMACISTS.—The Army Bill, so long before the Legislature, cannot possibly pass this session. Consequently it is hopelessly lost, and army officials have decided to call for more pharmacists, since their functions will not be suppressed just yet. A competition for admission to the Val-de-Grâce finishing school for army physicians and pharmacists is to be held on December 26 on the following conditions:—Candidates must be French by birth or naturalisa-

tion; have been at least twenty-six years of age on the beginning of this year; be able-bodied; and engage to serve at least six years. Pharmacy candidates must have the diploma of pharmacist of the first class, and undergo a series of examinations, written, oral, and practical. The successful candidates shall, immediately on joining the Val-de-Grâce school, be entitled to 3,096f. yearly pay, and an allocation for uniform and equipments. Before leaving the school they must pass a final examination, and then join the regular army as pharmacists'-aid-majors of the second class.

THE GRAPHOPHONE (already described in this journal) was exhibited to the Academy of Sciences on June 3 as a competitor with Edison's phonograph. The instrument is also exhibited in the American section of the Exposition. The graphophone differs from the phonograph in that the cylinder is worked with the foot, and not by electricity, a pedal and crank much resembling a sewing-machine supplying the motive-power. Then the recording cylinders are made of thin pasteboard covered with a waxy composition, and, therefore, lighter, more durable, and easier to transport than Edison's wax-tubes. And, finally, the makers claim that, while the graphophone may not give so loud a repetition of the sounds with the magnifying horn, it is more distinct than the phonograph with the rubber-pipes adaptable to the ears. In one respect, however, the two instruments are alike. To insure the highest possible return they will not be sold, but only hired out at so much a year.

THE EXPOSITION JURIES.—By a Presidential decree, issued on May 29, the total number of jurymen shall be 1,000, and of alternative jurymen 333, instead of 900 and 300 as at first decided. At the same time long lists of French jurymen and alternative jurymen have been published to serve on the special juries mentioned in *THE CHEMIST AND DRUGGIST* of April 6, page 478. For Group 5, Class 45, chemicals and pharmaceuticals, the jury is composed as follows:—Frédéric Boude, sulphur refiner; Félix Dchaynin, manufacturer; Frémy, member of the Institute, director of the Museum of Natural History; Friedel, member of the Institute; Jungfleisch, member of the Institute, professor at the School of Pharmacy; Knieder, director of the Maletta works; Jules Kolb, of the Chemical Company of the Nord; Lequiu, of the Chemical Company of Saint-Gobain, Chauny and Cirey; Lorilleux, printing-ink manufacturer; Michaud, soap manufacturer; Alfred Riche, professor at the School of Pharmacy; Jules Roux, soap manufacturer; Scheurer-Kestner, senator; Schlösing, member of the Institute, director of the School for the application of Tobacco; Schutzenberger, professor at the College of France; Troost, member of the Institute, professor of the Faculty of Sciences; Tugot, varnish manufacturer. Alternates:—MM. de Bonnard, of Coignet et Cie., civil engineer; Ernest Hardy, chief of laboratory at the Academy of Medicine; H. Suillot, chemical manufacturer; Amédée Vée, pharmaceutical manufacturer. Now, as soon as foreign exhibitors have selected their jurymen, the different juries will organise and proceed to business.

PARIS SOCIETY OF PHARMACY.

At the regular monthly meeting of June, President Bouchardat having called the gathering to order, Perpetual-Secretary Planchon read a communication from Senhor Sampaio, of St. Paul, Brazil, making a present to the college collections of the various drugs and materia medica specimens now exhibited in one of the Brazilian sections at the Exposition. In return, and also as a recognition of the interest often shown by S. Sampaio in the welfare of pharmacy, Professor Planchon moved that he be elected a foreign corresponding member, a proposition which was, according to rule, referred to a committee.

EXTRACTS WITHOUT HEAT.

M. A. Vée, referring to a former discussion on solid extracts, gave it as his opinion that the old-style preparations with the water-bath were not so inferior to the modern vacuum-pan products as manufacturers would lead pharmacists to believe. In vacuo the temperature rises to 30° or 40° C., which corresponds to probably not much less than 80° for liquids evaporated, and under the double effect of the heat and low pressure it is easy to understand how volatile principles are dissipated, and perhaps other changes induced. For

these reasons M. Vée approved the principle of the congelation process as applied by MM. Naudin and Adrian. [The method was at the time described in THE CHEMIST AND DRUGGIST.] Only in practice, in place of freezing the extractive liquors to solid blocks of ice which afterwards have to be shaved to snow by machinery, he preferred an incomplete congelation enabling the pure water to crystallise out. The process, by the way, which is so successful with extractive liquids, fails with liquids containing chemicals forming regular hydrates. Thus solutions of sulphuric acid, or cherry-laurel water holding prussic acid, will not become more concentrated on freezing, the acids forming crystallised hydrates, and remaining with the congealed water. But as ordinary extracts only are to be considered, the process rapidly separates out most of the water, and the remainder can in less than two days be driven off without heat, by spreading the liquors in flat vessels held in air-tight spaces over concentrated sulphuric acid. To illustrate the process, fine specimens were shown of solid extracts of strawberry, currant, and raspberry juices, presenting the natural colour, taste, and flavour of the freshly-expressed preparation.

ANTIMONIOUS ACID, GLYCERINE, AND ORANGE-FLOWER WATER.

M. Ferrand called attention to the singular coloured reaction noticed in the foregoing mixture by M. Arnozan, of the Bordeaux Society of Pharmacy. On repeating the experiment, he observed the pink colour assumed by the liquid when the mixture is brought to nearly the boiling-point. The precipitate remains colourless, and no change occurs when either the glycerine is replaced by simple syrup or any other distilled water substituted for orange-flower water.

The mixture in question was as follows:—

	Grammes.
Diaphoretic antimony	2
Glycerine	70
Orange-flower water	125

A NEW POISON-BOTTLE

was sent for approval by a bottle manufacturer. It contains on one side the death's-head and cross-bones and the word "Poison," all embossed, while the other side is fluted, so as to affect the sense of touch when sight is of no avail—at night, for instance. The fluting was thought a good idea—if not a new one; as to the death's-head, cross-bones, and "Poison," they were considered objectionable. French patients will not have their medicines put up in such bottles, even if they are only mixtures for external use.

By a vote of 30 out of 35 M. Barillé was elected a member of the Society. This concluded the business.

GENERAL MEDICAL COUNCIL.

THE meeting of this Council has continued throughout the present week under the presidency of Mr. John Marshall, F.R.C.S. Early in the proceedings a letter was read announcing the

RESIGNATION OF DR. AQUILA SMITH,

who had been a member of the Council for thirty years, and now, owing to old age—the doctor is 84—has been compelled to resign, but, he informed the Council in his letter, his health was very good and his sight and hearing unimpaired. Dr. Smith was one of the principal members of the Pharmacopœia committee. He has been a useful councillor, and the president and fellows of the King and Queen's College of Physicians in Ireland have recorded their high appreciation of his services. Dr. Lombe Atthill, of Dublin, has succeeded Dr. Smith as the representative of the college, and attended the Council during the session.

AMENDING THE PHARMACY BILL.

In the course of his opening address the President announced that the committee had prepared the new clauses which the Council proposed to have introduced into the Pharmacy Acts Amendment Bill. Sir Walter Foster, M.P., had promised to take charge of them, and is to make an effort to obtain support for the amendments in the House of

Commons and from the Government. We understand that the clauses referred to are substantially as follows:—

"Notwithstanding anything contained in the Pharmacy Act, or the Pharmacy Act, 1868, or this Act, every penalty under the fifteenth section of the Pharmacy Act, 1868, or under this Act, may be recovered before a court of summary jurisdiction, in the manner directed by the Summary Jurisdiction Acts, as if it were a penalty for an offence punishable on summary conviction.

"The expression 'Summary Jurisdiction Acts,' in Scotland, means the Summary Procedure Act, 1864, the Summary Jurisdiction (Process) Act, 1881, and any Act or Acts amending the same.

"For the purposes of the Sale of Food and Drugs Act, 1875, and any Act amending or extending that Act, the British Pharmacopœia, published under the Medical Acts, shall be the standard for determining the composition of drugs and medicines; and any drug or medicine sold as being one of the drugs or compounded medicines of the British Pharmacopœia shall not be deemed to be of the nature, substance, quality, and ingredients demanded by the purchaser of such drug or medicine, unless the same has been compounded in accordance with the formularies of the British Pharmacopœia."

THE BRITISH PHARMACOPŒIA.

The committee reported to the Council that 27,460 copies of the last edition of the Pharmacopœia have been sold; the amount received for the work being 5,200*l.* 14*s.* 11*d.*, but the cost has only been 4,186*l.* 4*s.* 11*d.*, so that with the value of 1,540 copies remaining in stock, there is a balance in favour of the Council of 1,362*l.* Such a fine property as this is worth nursing, and in this opinion the committee had been concerned regarding the announcement of a work entitled "The British Pharmacopœia Annotated," compiled by Dr. Maybury, and to be published by Mr. Henry Kimpton. This work, if published, would constitute, the committee were of opinion, an infringement of their legitimate rights as the sole producers and publishers of the Pharmacopœia. The publisher had accordingly been warned, and there is reason to believe that the book will not be issued.

In moving the adoption of the report, Dr. Quain referred with gratification to the large sale of copies of the Pharmacopœia. In regard to the "Annotated British Pharmacopœia," he said he did not think the publisher would now be so unwise as to be guilty of the plagiarism. Mr. Macnamara (who happens to be the author of a little book on the Pharmacopœia) said it might be as well to point out that the publication of a work dealing with the same matter as the Pharmacopœia, but differently treated, would not constitute an infringement of the copyright. Moreover, the books published of that kind were generally sold at a much higher price than the Pharmacopœia; whereas the proposed publication to which Dr. Quain had called their attention would be sold at half the price.

Dr. Atthill was appointed to fill the vacancy in the committee caused by the resignation of Dr. Smith.

FINANCIAL CONDITION.

The report of the Finance Committee showed that the income for the year 1888 was less by 1,794*l.* 8*s.* 10*d.*, and the expenditure less by 578*l.* 0*s.* 6*d.*, than in 1887; nevertheless, the expenditure exceeded the income by 1,040*l.* 16*s.* 9*d.* Evidently in anticipation of this report, Dr. Batty Tuke earlier in the proceedings proposed that the Council should meet each day at 1 P.M., and not sit after 7 P.M., thus making a six hours' day's work instead of four, and reducing the expenses of members' fees by 33 per cent., which would be equal to a saving of 1,000*l.* a year.

Very varied opinions were expressed regarding this proposal, Dr. Quain saying that the best way to secure economy would be to shorten the speeches. The present sittings were quite long enough to transact all the necessary business if that course were adopted. The funds were in a fairly satisfactory condition, the average excess of income over expenditure during the last seven years having been 870*l.*, so that bankruptcy was not imminent.

Other London members supported Dr. Quain's view, and ultimately the motion was withdrawn.

A very large portion of the Council's time was taken up with educational matters, which were of little general interest.

Legal Reports.

SURGICAL INSTRUMENT CATALOGUES.

IN an action of Arnold & Sons against Lynch & Co., a motion was brought before Mr. Justice Chitty, in the Chancery Division of the High Court of Justice, on Friday, May 31, on behalf of the plaintiffs, asking for an injunction to restrain the defendants from issuing and circulating a catalogue of surgical instruments, which was alleged to be a piracy of the plaintiffs' catalogue. The plaintiffs are surgical instrument manufacturers in West Smithfield, and the defendants are druggists' sundriesmen in Aldersgate Street. The plaintiffs alleged that the engravings in their catalogue, which cost them over 1,000*l.*, had been copied by the defendants. The plaintiffs had registered their catalogue in 1885 and in 1888, but the defendants asserted that the 1888 edition was only a copy of the 1885 edition. Several points of law were raised, which the defendants contended were in their favour, and the plaintiffs asked leave to amend their notice of motion. This, however, was objected to by the defendants, who claimed to have the motion dismissed, the notice not being in proper form. After the arguments had been heard for two hours and a half, it was agreed that his lordship should make no order on the motion, except that the costs should be reserved, and that the motion should stand over till the hearing of the action, leave being given to amend the writ.

SHIPPING PHOSPHATE OF LIME.

AN action of some importance to shipping druggists came before Mr. Commissioner Kerr on May 24. The plaintiff, Mr. John Whitmore, of Harwich, sought to recover the payment of 5 guineas from the defendants, Messrs. Moller, Graetz & Co., of Billiter Avenue, Billiter Street, E.C.

Mr. Cranstoun was counsel for the plaintiff, and Mr. Edward Pollock for the defendants.

According to the plaintiff's case, on January 18 last he entered into a charter-party with the defendants to go to Dunkirk and bring a cargo of phosphate of lime to London, of which the defendants were the owners. Owing to the default of the defendants, the phosphate of lime was kept at the docks for a time considerably longer than it should have been, and the Custom House officers made a claim against the plaintiff for 5 guineas for the cargo having been specially watched during the delay, which sum was now sued for.

Mr. Pollock said there was nothing in the statute compelling them to pay the 5 guineas. They had paid for demurrage, out of which the plaintiff should have paid the 5 guineas.

Mr. Cranstoun told the court the matter was one of great importance to his client, and to many other people.

Mr. Commissioner Kerr said that might be so, but the plaintiff relied on an implied promise to pay, but he could see no *assumpsit*. The plaintiff could not both eat his cake and have it. He would enter a nonsuit, but as the case was of so important a description he would give leave to appeal.

A nonsuit was accordingly entered, leave to appeal given, and the defendants' costs allowed.

DAMAGE TO A CARGO OF CHEMICALS.

IN the City of London Court, on June 1, the hearing of the case of Filmer & others and Lawes Chemical Manufacturing Company (Limited) *v.* Craske and others was disposed of before Mr. Commissioner Kerr. The plaintiffs were the owners of the ketch *Eliza*, and the Lawes Chemical Manufacturing Company (Limited) the owners of the cargo on board that vessel, and the defendants were the owners of the barge *D. E. F.* It was an action to recover 300*l.* for damage done to the *Eliza* and her cargo, by a collision which occurred between that vessel and the *D. E. F.* on March 7. Defendants admitted the negligence, but it was contended that the plaintiffs were also to blame, by reason of the anchor of the *Eliza* being in an improper position at the time of the collision. Mr. Gaskell was counsel for the plaintiffs and Mr. Pyke for the defendants. The *Eliza* had a cargo of chemicals on board at the time of the collision, which she was conveying to Lympington. The result of the collision

was that a large hole was made in the port side of the stern, through which the water flooded and caused considerable damage to the cargo. The case had been adjourned for the attendance of the defendants' surveyor, who now gave it as his opinion that the hole referred to was caused by the fluke of the anchor of the *Eliza*, and that the anchor was in an improper position at the time of the collision. Mr. Commissioner Kerr said he must find for the plaintiffs, but the amount to which they were entitled would be assessed by the Registrar. Judgment was entered accordingly, the plaintiffs' costs being allowed.

SAL VOLATILE AND THE BRITISH PHARMACOPEIA.

AT the Bow Street Police Court on Saturday, Mr. Charles Ferdinand Keele, M.R.C.S.E., &c. (trading as Keele & Co.), chemist, 260 Tottenham Court Road, appeared before Mr. Vaughan to an adjourned summons charging him with having sold sal volatile not of the nature, substance, and quality of the article as required by the British Pharmacopœia. Mr. Howard Smith appeared in support of the summons; Mr. Forrest Fulton defended.

At the last hearing it will be remembered that the evidence given for the prosecution was by the purchaser (an inspector for the Board of Works of the St. Giles's district) and the analyst (Professor Redwood). The hearing was adjourned at Mr. Fulton's request, and on Saturday the case for the prosecution was resumed. There were several pharmacists in the court during the hearing of the case. The following witnesses were called for the prosecution.

Mr. Samuel Robert Lovett, medical practitioner, of Great Russell Street, examined, said that when he prescribed sal volatile he should expect it to be made according to the formula of the British Pharmacopœia. In cross-examination he said sal volatile had always been used in medicine, and if he ordered it from a chemist his order would be for spirit. ammon. aromat. He agreed that until 1867 the London Pharmacopœia formula was the only one in use. The sal volatile of that Pharmacopœia was much used. People were in the habit of buying it as sal volatile, but it was not until 1867 that that synonym came to be used as equivalent to spirit. ammon. aromat. Until 1867 the sal volatile of commerce was that of the London Pharmacopœia, and he quite admitted that some of the old school of medical men might prescribe it as spirit. ammon. aromat.

Re-examined: He laid it down that the British Pharmacopœia formula was the formula by which the sal volatile of commerce should now be made.

Mr. Walter Temple Cooper, Oxford Street, assistant to his father in the business of pharmaceutical chemists, stated that if spirit. ammon. aromat. was ordered in a prescription he would certainly understand it to mean the preparation of the British Pharmacopœia.

James Wm. Thomas Morris, chemist, Osnaburg Street, corroborated as to the use of spirit. ammon. aromat., B.P., in prescriptions.

Mr. Forrest Fulton then stated the case for the defence. The article in question here was one which had been used since 1721, and which was sold in enormous quantities. It was an article which had been made up by generations of medical men, and it was a preparation with which the public were perfectly familiar. Alluding to the Medical Act of 1862, which had been quoted in support of the case for the prosecution, he contended that the section of that Act which provided that the British Pharmacopœia when published should be deemed to be substituted throughout Great Britain and Ireland for all earlier pharmacopœias, and that any Act of Parliament, Order in Council, or custom relating to any of these earlier pharmacopœias should refer to the British Pharmacopœia, did not make it a penal offence to sell sal volatile made according to the London Pharmacopœia.

Christopher Coulthard, manager to Keele & Co., was examined for the defence. He remembered that the sal volatile in question was supplied to Inspector Hoyle. It was the ordinary P.L. sal volatile he gave. They bought it from Messrs. Battley & Watts, wholesale druggists. In ordering sal volatile they sometimes called it by that name and sometimes they called it spirit. ammon. aromat. If they wanted it according to B.P. they specially mentioned B.P., but if they merely ordered it without any qualification they expected to get the P.L. spirit.

In cross-examination witness said that the difference in the price between the two preparations was 2d. per pound. The B.P. spirit was that much dearer. It was not for that reason that the P.L. was given. For the 6 oz. of sal volatile they charged 3s. The B.P. preparation would be just the same. The latter was always used in compounding prescriptions.

Re-examined he repeated that when they wished spt. ammon. aromat. B.P. they specially mentioned "B.P."

Mr. John Manning Watts, called, stated that he was a partner in the firm of Battley & Watts, wholesale druggists, Lower Whitecross Street. They had supplied Messrs. Keele & Co. with the sal volatile in question. The order was for 1 lb. spt. ammon. arom., and the P.L. spirit was supplied. It was their invariable practice to send P.L. unless the customer specified B.P. They sold much more of P.L. than B.P. It was the London Pharmacopœia 1851 formula which was followed. That spirit was known in the trade as sal volatile.

Cross-examined, witness stated that his firm supplied medicine to many medical men, to whom they also gave the P.L. spirit, even if it was ordered as "spt. ammon. aromat." No complaint had ever been made.

By Mr. Vaughan: He was not aware that there was an Act of Parliament which directed that the British Pharmacopœia alone had to be followed in compounding the preparation.

Mr. Paul Thomas White, called, said he was a partner in the firm of Alfred White & Sons, manufacturing chemists, Castle Street, Saffron Hill. They were in the habit of supplying Messrs. Battley & Watts with sal volatile, and had supplied them with a parcel on March 6. He believed it to be that now in question. He had read Dr. Redwood's analysis of the spirit, and did not dispute it, for he had not had an opportunity of analysing the spirit himself. When his firm received an order for sal volatile they always gave the P.L. article. They distilled much more of that than of the B.P. spirit. They gave the B.P. article when "B.P." was specified, not otherwise.

Mr. Fulton said that was his case, and he again contended that it was the custom of the trade to supply the public with the P.L. spirit for "sal volatile." The requirement that the British Pharmacopœia process alone should be followed was simply intended to apply to the article used in compounding medical prescriptions, and the Act of 1862 did not make it penal to supply sal volatile made according to the London Pharmacopœia.

Mr. Vaughan took a different view. Quoting from the Act, he read, "The British Pharmacopœia, when published, shall for all purposes be deemed to be substituted throughout Great Britain and Ireland for the several above-mentioned pharmacopœias, and any Act of Parliament, Order in Council, or custom relating to any such last-mentioned pharmacopœias shall be deemed, after the publication of the British Pharmacopœia, to refer to such pharmacopœia." He also quoted from the preamble to show that there was no limitation of the application of this provision. He then proceeded to give his judgment, remarking that the summons against the defendant was for selling sal volatile which was deficient in alcohol and in alkali, and which did not correspond with the sal volatile of the British Pharmacopœia. Professor Redwood, both in his analysis and in the evidence he had given, distinctly stated that the article sold did not come up to the requirements of the British Pharmacopœia by one half. This was not denied; and the next point to be considered was whether it was lawful to sell drugs prepared according to any other than the British Pharmacopœia. There really could be no question on this point unless it was to be assumed that Acts of Parliament were to be entirely ignored or taken as of no weight and non-existent. The evidence called for the defendant was simply that of the defendant himself, or rather his manager, the wholesale chemist who supplied him, and the manufacturer. All these, he might say, were in the same boat, and he placed very little reliance on their testimony, for it seemed to him they were in ignorance of the Act of 1862. They might have acted on the knowledge which they previously possessed, but they did not themselves take the trouble to inquire whether there was any alteration of the law prohibiting them from manufacturing and selling articles specified in the London Pharmacopœia. He could not himself look at the Act without coming to the conclusion that any drug made up according to any

other pharmacopœia than the British was a violation of the Act; and in this view he was confirmed by the decision in the case of "White v. Bywater," wherein it was held that if a person asked for tincture of opium he was entitled to be supplied with it of the substance and quality mentioned in the British Pharmacopœia, and not with something of an inferior quality, or anything which the seller might choose to give him. The magistrate at Sheffield in that case at first dismissed the case, holding that in the absence of any special request for the drug according to the British Pharmacopœia, the drug as described in other pharmacopœias could be sold. That was not the view taken by the judges, who thought the magistrate ought to have convicted the defendant, and who sent the case back to him for rehearing. He (Mr. Vaughan) therefore could not entertain any doubt that the article in question must be held to have been not of the nature, substance, and quality of that demanded, and he was bound to convict. But as he had said at the previous hearing, if it could be proved that it was sold as it came from the wholesale dealer, he should hold it to be a case in which he could impose a nominal penalty. That had been proved, and he should act on his opinion. At the same time he hoped that this decision would have the effect of making all persons dealing in drugs remember that the provisions of the Act must be complied with, and that their drugs must be made up according to the British Pharmacopœia. He would fine the defendant 40s. and costs.

Mr. Fulton hoped that costs would not be insisted upon. This was a test case, and it was hard that the defendant should have to bear the expense of it.

Mr. Smith did not press for full costs, but thought that the defendant should at least pay the cost of the summons (2s.), and this the magistrate decided upon.

CALIFORNIAN OLIVE OIL.

AT a recent meeting of the Philadelphia College of Pharmacy a paper was read by Mr. Frank X. Moerk, in which Californian olive oil was compared with that of European origin. The samples of the American product were unquestionably genuine. In addition to finding that they were of a higher specific gravity (0.91747-0.91797) than the foreign oils, it was noticed that the reactions with acids were more intense and that the elaidin reaction was longer delayed. But the most remarkable fact was the extremely high percentage of free acids which the native oils contained. We generally expect a good oil to contain a mere fraction of 1 per cent. of free acids; but one sample of Californian contained as much as 8.33 per cent.; another (first pressing), 1.51; and a third (second pressing), 2.96 per cent. In the face of this observation the higher specific gravity is also remarkable, because free acids tend to lower that factor. Contrariness was further exemplified in the melting-point of the free acids. Those from foreign oils melt at about 26° C., but the Californian acids went as low as 19° C. (the mean may be put down at 21° C.). The acids of the American oils at a temperature of 20° C. are viscid fluids containing in suspension the higher melting acids; the European oils are solid at this temperature. In addition to observing that the saponification equivalent of the American oil was higher (295 as compared with 292), there was also noticed a remarkable difference in the iodine absorption figures. The Californian oils absorbed 88 per cent. of iodine, while the foreign varies from 81 to 85 per cent. This is very probably due, the author thinks, to the presence of more olein than in the European oils, the melting-point of the fatty acids also indicating this. There is another instance known, similar to this one, in which it has been proved that American fats differ in important respects from the same European fats—viz., lard. American lard has an iodine-absorption of from 60 to 62 per cent., English lard from 51.5 to 62 per cent. From such results it would appear that climate and soil modify considerably the composition of the fats and oils, and for such variations due allowance must be made. In the complete paper, which is printed in the *American Journal of Pharmacy*, tables are given of the colour-reaction results; but the foregoing substantially shows the essential differences between the American and European oils.

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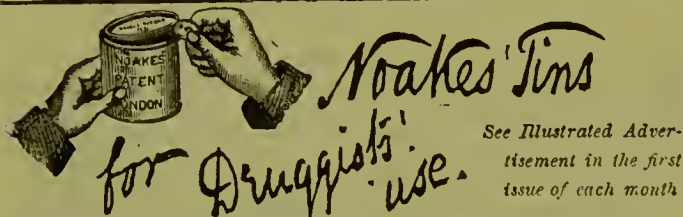
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EDITORIAL NOTES.

THE AUTHORITY OF THE
PHARMACOPŒIA.

THE result of the sal volatile case at the Bow Street Police
Court is not by any means satisfactory. According to Mr.
Vaughan's decision, sal volatile means the spiritus ammoniac
aromaticus of the British Pharmacopœia, and it is penal to
sell anything else for an article called for by that name.
This is an important matter, and one which should not be
finally decided without a much more complete argument
than seems to have been accorded to it at Bow Street. Let
it be clearly understood what the decision, if maintained,
implies. It means that it is penal to sell any preparation
described in the Pharmacopœia, either under its principal
title or under any synonym therein given, unless the article
sold corresponds exactly with the description given in the
Pharmacopœia. It means that any pharmaceutical aberration
or eccentricity which the irresponsible compilers of the
Pharmacopœia may yield to has the force of law; they may
alter the meaning of words of ancient use in the English
language at their own sweet will, and no one may do more
than protest; their work, in brief, is to be a legal standard
to just the extent that they please to make it. If Mr.
Vaughan is right, it is not only practically forbidden hence-
forth for customers to get the old-fashioned sal volatile
which they have indulged in these forty years, but they may

not have any soda-water with less than 30 grains of bicarbonate of sodium to the pint; their potash and lithia water must be of a certain fixed strength, whether they wish it or not. Ipecacuanha lozenges, essence of ginger, mustard-paper, black draught, quinine wine, Gregory's powder, chalk-mixture, mixture of French brandy, warm plaster, mustard poultice, liquor bismuthi, and other things which were made by chemists and others generations before the Pharmacopœia authorities seized on the title, must now be made by the Pharmacopœia process, or not made or sold at all except under some other name. There is nothing in the world to prevent the Pharmacopœia compilers issuing another lot of additions next year, and including in them their own fancy formulæ for antibilious pills, soothing powders, gout-mixture, or bears' grease, and afterwards those formulæ only must be followed at the peril of the pains and penalties prescribed by the Sale of Food and Drugs Act.

We do not by any means say that such a state of things is not desirable. It may at least be fairly argued that a definite standard for sal volatile and other medicines would be a valuable protection to the public. But what we say is, that before the Pharmacopœia is made such a standard due notice should be given, and fair opportunity for scrutinising new formulæ afforded before these are published and become binding. The claim of chemists for representation on the Pharmacopœia Committee cannot be reasonably resisted if their trade is to be so seriously challenged, as it might be by adopting Mr. Vaughan's judgment as a true interpretation of the law.

We are not presumptuous enough to doubt the soundness of the magisterial decision; we only aim to show that it is not in accordance with the general understanding, and does not rest on a very firm statutory basis. The Sale of Food and Drugs Act makes no mention of the Pharmacopœia as a standard. Indeed, in a previous sal volatile trial (reported in this journal February 4, 1888) the solicitor for the defence said: "It was stated in the 24th edition of Stone that when the Bill was introduced it contained a clause providing that drugs should be compounded according to the British Pharmacopœia, but that this was struck out in the House of Lords." Under that Act, therefore, there is no ground for the assumption of the prosecution in the recent case, that proof of defection from the British Pharmacopœia standard was sufficient evidence to ensure a conviction; and, what is very important, when the Sheffield tincture of opium case came before the Court of Queen's Bench on an appeal from the Sheffield stipendiary, Lord Chief Justice Coleridge and Mr. Justice A. L. Smith, in the absence of any defence, ruled that tincture of opium should be of B.P. strength, not (as Mr. Vaughan seems to have argued) simply because the British Pharmacopœia had given a formula, but because the evidence laid before them went to show that tincture of opium was a well understood term in the trade, and that when asked for it was customary to supply the tincture prescribed in the British Pharmacopœia. Mr. Justice Smith put the point very concisely. He said: "3 oz. of tincture of opium had been asked for—What was the meaning of that? He thought it meant 3 oz. of tincture of opium of commerce, or the article usually sold as tincture of opium. That being so, and the evidence being all one way—for the gentlemen whose evidence was stated by the magistrate deposed that the tincture was not of the nature of the article understood by persons dealing in the article—it appeared to him that the appellant did not get the article for which he asked. Therefore the appeal must be allowed." It is clear that the Court of Queen's Bench did not recognise the exclusive authority of the British Pharmacopœia. In the case referred to there was not, nor could there be, any evidence of custom

as to the sale of another preparation in preference to that of the Pharmacopœia. In regard to the sal volatile case, the circumstances and the evidence were very different.

What, then, is the authority of the British Pharmacopœia? So far as England is concerned it rests, not on an Act of Parliament, but simply on an Order in Council, and we are not prepared to estimate the exact legal value of an Order in Council which is not dependent on a previous Act. The Medical Act of 1858 orders the Medical Council to prepare a British Pharmacopœia, but does not declare what value that Pharmacopœia shall have when it is published. The Medical Act of 1862 substitutes the British Pharmacopœia for those of London, Edinburgh, and Dublin, and transfers to it the authority of any Act of Parliament, Order in Council, or custom relating to any of those Pharmacopœias last mentioned. In the preamble to the Act it is explicitly declared that the London Pharmacopœia was sanctioned by an Order in Council, that the Edinburgh Pharmacopœia had no legal sanction, and that that of Dublin only was sanctioned by Act of Parliament. In Ireland, therefore, we judge the authority of the Pharmacopœia is unquestionable; in Scotland it does not exist; and in England it depends on the legal authority of an Order in Council. The only other statutory reference to the British Pharmacopœia is that which occurs in the 15th section of the Pharmacy Act, 1868, which provides that anyone "who shall compound any medicines of the British Pharmacopœia, except according to the formularies of the said Pharmacopœia" shall be liable to a fine of 5*l*. We are inclined to doubt whether this provision has any intelligent force at all. A medicine prepared by any other formulary than that of the British Pharmacopœia is not a medicine of the British Pharmacopœia at all; if it is prepared by that formulary it is a medicine of the British Pharmacopœia. It is not clear how anyone could incur that penalty.

The Order in Council on which the authority of the Pharmacopœia depends in England is full enough. It applied to the London Pharmacopœia of 1851, and was dated February 3, 1851. According to its terms her Majesty did

"strictly require, charge, and command all and singular apothecaries and others, whose business it is to compound medicines, or distil oils or waters, or make other extracts within any part of Her Majesty's Kingdom of *Great Britain* called *England*, *Dominion of Wales*, or *Town of Berwick-upon-Tweed*, that they and every of them immediately after the said *Pharmacopœia Collegii Regalis Medicorum Londinensis* shall be printed and published, do not compound or make any medicine or medicinal receipt or prescription, or distil any oil or waters, or make other extracts that are or shall be in the said *Pharmacopœia Collegii Regalis Medicorum Londinensis* mentioned or named, in any other manner or form than is or shall be directed, prescribed, and set down by the said book, and according to the weights and measures that are or shall be therein limited, except it shall be by the special direction or prescription of some learned physician in that behalf; and Her Majesty doth hereby declare that the offenders to the contrary shall not only incur Her Majesty's just displeasure, but be proceeded against for such their contempt and offences according to the utmost severity of the law."

We have no doubt that Mr. Keele, Messrs. Battley & Watts, and Mr. White have legally incurred her Majesty's displeasure, but we very much question whether her Majesty could be fairly supposed to have contemplated in 1851 the penalties imposed by the Food and Drugs Act of 1875—and these are what they were sued for.

We understand that an attempt was made to induce the London wholesale druggists to unite in an appeal from Mr. Vaughan's decision in the sal volatile case, but that the general opinion held by them was that the law was against

them, and that it was not sufficiently their concern to induce them to enter on a legal campaign. As a matter of fact, B.P. sal volatile is much more generally supplied now than it was a few years ago, and the effect of this action will probably be to substitute it for the P.L. article almost completely. The general question of the authority of the Pharmacopœia is, however, too important to be established by a magisterial decision, especially in the face of the judgments of Lord Chief Justice Coleridge and Mr. Justice Smith referred to above, and in which that authority was neither adopted nor assumed.

THE PRESIDENCY AND THE POLICY OF THE PHARMACEUTICAL SOCIETY.

MR. CARTEIGHE has been reappointed to the presidency of the Pharmaceutical Society for the ensuing year. This makes eight consecutive years during which he has held the supreme office in the Society, a longer term of power than was granted to any of his predecessors.

The re-election of Mr. Carteighe as President was inevitable, unless he had himself resolutely refused to serve. His team, as he once delicately called his colleagues, are as faithful to him as ever; and they are quite right to support him. The old members of the Council are as responsible as himself for the policy which was so markedly condemned at the recent election, and we have no evidence yet that the new men are the bearers of a new message for the trade. There was no organised rivalry of policies at the election, and the most obvious way of indicating dissatisfaction with the proceedings of the Council generally was to strike out the name of the most prominent advocate of the purposeless extravagance of recent years, and the most ostentatious despiser of the demands and desires of the contemptible "rank and file."

Our candid and esteemed critic, "A Reader," who seems to have found us somewhat off colour because we "have not spoken out loud and clear on the question of the presidency," in opposition to Mr. Carteighe, seems to us a little "too previous." When we tried at the beginning of this year to give expression to what we thought was the voice of the trade in regard to the legislative policy to be followed, why did not he and his friends in the Society support us? We appealed for that support, and we did not get it. We said at the time that the compulsory curriculum policy held the field. The election showed that there were at least 700 voters in the Society who disapproved of the policy, and another 1,600 who did not care enough for it to bow the knee to its chief priest. But the discontents must organise if they want to push their views. They have given the Council a lesson which we do not think will be altogether overlooked. It may suit the curriculumists to declaim against the Anti-Vivisectionist Society, and to make believe that it was their circular which had so much effect, but they know very well that that gained their champion as many votes as it lost him. What we want at these Council elections is a distinct issue of policy to fight upon, not of persons. Our angry correspondent suggests Mr. Atkins as an ideal President. What is the object of such a change we fail to see. Mr. Atkins's votes have always been on the side of his chief, and we are not aware that he has ever announced a distinct policy of his own which it will be worth changing policies for. For one Amurath to succeed another is not worth outside exertion. In our view, in the present Council Mr. Carteighe is not merely the best, he is the only possible President; but if, as we say, these dissatisfied members of the Society would only insist on a certain policy, and vote

only for men who would promise to support it, they would then, in the event of victory, have the right to demand a change of officers, never mind how tall the great men of the Society might talk and write.

CURING NEURALGIA.

DR. J. COMPTON BURNETT has compiled a little book on the attractive topic of "Neuralgia" (London: The Homœopathic Publishing Company). We say "compiled" advisedly, because the book consists so largely of extracts from the author's previous works that Dr. Burnett's admirers will have the right to feel a little aggrieved if they buy this one expecting to get a new treatise. Dr. Burnett is very sarcastic on the allopathic treatment of neuralgia, which, according to him, "amounts merely to this: They either stun, stifle, maim, mutilate, or cut the telegraphic wires (the nerves), so that the painful news may not arrive—i.e., in true Oriental fashion they kill the messenger because of the disagreeable message he brings. . . . The only proper, right, and rational treatment of neuralgia is to go to work ætiologically and cure causally." But we all desire "to go to work ætiologically." The cases which follow show that there is a good deal of chance about "the only proper, right, and rational treatment." Mrs. Blank, aged twenty-four, whose case is first cited, was dosed with "aconite, belladonna, bryonia, calc. c., cocculus, cimicifuga, coffea, gels., glon., ignat., mag. c., nux v., puls., sepia, spig., sulph., verat. a., china, populus, and some others"! She filled up time—while the prescriber was planning the next attack, we suppose—by applying "nearly every known anodyne." Then she was sent away for change of air, and she was found to be worse at the seaside than she was inland. This gave the clue. It was the salt in the air that made the patient ill; ergo, on homœopathic principles give her infinitesimal doses of *nat. mur.* We do not see why *cimex lect.* should not have been just as strongly "indicated"; that sweet homœopathic remedy is almost as abundant in some seaside places as *natri mur.* The salt pilules in the doctor's medicine-chest happened to be the thirtieth dilution, and these turned out to be the exactly correct strength. "The neuralgia at once began to get better, and in a day or two was quite well." From the context we gather that the patient also got well about the same time, and she and the doctor were both "satisfied that the *nat. mur.* 30 effected the cure." We have not time to work out the exact dose of salt thus administered, but it was nothing approaching the hundred-thousand-million-billionth of a grain. Dr. Burnett is shrewd enough to guess that "the case will not carry conviction to unprepared minds, and still less to prejudiced ones." Dr. Burnett records a number of other miraculous cures, most of which he credits to his own skill as a prescriber, though he is pious enough at the end of his book to give God the glory for the law of similars generally. We cannot, of course, dispute his records, but we must even yet reluctantly confess to a remnant of prejudice against his interpretation of them.

The cinnamon industry has for a long time been in a very distressed condition, and the Ceylon planters complain a good deal that this culture, which at one time was a perfect gold-mine to them, is no longer profitable. The enormously-increased exportation of the cheap but coarse cassia lignea from China is very largely responsible for this result, but it has also been brought about, in a measure, by the increased shipment from Ceylon of so-called cinnaumon "chips" at the expense of the "quills." The "chips," which are the thin or rough portions of the shoots, and which are now sent to Europe in large quantities for grinding and distilling pur-

Cinnaumon
Prices and
"Chip Ship-
ments."

poses, appear formerly to have been wasted, and at present Mr. Jardine, a planter of Goluapokuna, is reported in the Ceylon journals to be again agitating among his colleagues to form a combination to stop the exportation of the chips altogether. He quotes the opinion of a leading firm of London brokers that if the cinnamon chip shipments could be stopped wholly—not partially—"it would, no doubt, exercise an important influence upon the price of cane cinnamon sold in London; but there would always be the risk of some growers breaking through the arrangement, induced by the advance in the value of chips, which would probably take place if any small lots did come forward. It is estimated that chips have been imported during the past few years to an extent equal in weight on the average to nearly 4,000 bales of cane cinnamon per annum, and there can be no doubt that a large portion has been used in place of quills." Twenty years ago it would seem that part of the cinnamon which is now made into chips used to be cut down, dried, and sold as firewood. Planters were then so particular that they never sold the coarse wood fresh, for fear that the buyers would scrape it. The large quantity of chips that now swells the market is from the new districts, where people were not particular as to what kind of seed they planted. Seed from coarse wood produce coarse and unpeelable cinnamon, which helps to increase the quantity of chips. There was such a demand for cinnamon seed at one time that people paid from 10 to 15 rupees per bushel for it. Mr. Beven, of Veyangoda, says the *Ceylon Journal*, from which we quote, should also agitate stopping the scraping of chips in his district, as a very large quantity of coarse cinnamon and chips are produced by natives in that locality. Meanwhile, without any concerted action on the part of the planters, the exports of chips have already this season fallen to far below their former proportion. The new crop of cinnamon in Ceylon, peeling of which will commence, it is said, about May 25, seems likely not to be a large one, the bushes looking very scanty.

* *

Star-anise Oil. A star-anise tree, when at its full strength, and in a favourable crop year, bears about $2\frac{1}{2}$ cwt. of fruit, which yield about 4 per cent. of essential oil, though it is said that if a less primitive still were employed than that used by the Annamites of Indo-China, this percentage might be sensibly increased. The tree yields a full and a small crop every alternate year. The Annamites distinguish three varieties of oil—white, red-brown, and yellow. The first is obtained from green or badly-kept fruit, the second is the usual variety, and the yellow oil is the best; but there is very little of it to be had, as the natives rarely dry the fruit in the sun, that being a slow process, and said to decrease the outturn. The natives never use star-anise oil themselves. Until the French occupation of Indo-China the distilling was done exclusively by the Chinese merchants, who bought up the seeds from the natives, and paid a tax to the Annamite Government for the use of the stills, but since the French conquest the natives do all the distilling, hiring the stills from the Chinese. In 1887 the monopoly of purchasing star-anise oil from the natives during the seasons 1887 and 1888 was let by contract for the first time for the sum of 26,050 francs—a little more than 1,000*l.* The four principal distilling centres are Ha-Lung, Lang-Son, Ky-Lua, and Dong-Dong—names which have become familiar of late as the scenes of several battles fought by the Annamites against the French. In the village of Ha-Lung alone there are twelve stills, and about sixty stills altogether in the district. The contractor has the right to levy a tax of four francs on every picul of seed sold to anyone else, but, as a matter of fact, he is now practically the only wholesale dealer in the market. In 1887 about fifty tons of oil were sold to him, for which he paid an average price of about 7·20 francs per kilo., or, say, 3*s.* 4*d.* per lb. for the oil. The cost of carrying the oil from Lang-Son, the central market, to Hanoi, the shipping port, is about $4\frac{1}{2}$ *d.* per lb., and it is believed that to the Hanoi importers and the Havre merchants engaged in the article there has been a profit on this trade (taking the average price of the two seasons) of about 10,000*l.*, or fully 30 per cent. of the entire amount. It is thought that the lease of the oil-farming rights for the season 1889 will give rise to considerable competition, and that a much higher price will be paid for it than on the previous occasion, the

more so as since then large tracts of land where the star-anise tree is grown, and which formerly were altogether outside the French jurisdiction, have been occupied by the French troops. The oil and the seed from those districts came formerly into commerce by way of China, but will now pass through the French port of Hanoi. Outside the French dominions in Tonquin the star-anise tree is said to be very scarce, and the territory at present in the hands of the French will, they believe, give them a virtual monopoly of the trade. For about fifteen years the French have been trying, at great cost, to acclimatise the trees in their African colonies on the Senegal, but without result. If we may rely upon the figures given above, the production of oil of star-anise in 1887 in French Indo-China alone equalled about 112,000 lbs., against an annual production of 94,000 lbs. of oil of *Pimpinella anisum*, according to Messrs. Schimmel & Co.'s calculation.

* *

New Sensitive Ink. A communication has recently been made to the Academy of Sciences by M. Péchard, which those on the outlook for a novelty may turn to account at once. It relates to the peculiar physical properties of oxalomolybdic acid, which is an acid obtained by adding molybdic acid almost to saturation to a hot solution of oxalic acid, the liquid becomes syrupy, and on evaporation yields crystals of oxalomolybdic acid, $C_2H_2O_4 \cdot MoO_3 \cdot H_2O$. The acid is almost totally insoluble in strong nitric acid, but dissolves in cold water, more rapidly on warming, yielding a colourless and strongly acid liquid. It forms well defined salts. The strange thing about the acid is that when the crystals are dry they may be preserved unchanged either in sunshine or in the dark; but, if moist, they quickly become coloured blue when exposed to the sun's rays. If characters be written on paper with the solution, they remain invisible in a weak light; but, when exposed to sunshine, they rapidly become visible, turning to a deep indigo colour. This only happens when the solution is spread over paper or other surfaces, for the solution itself may be kept unaltered in the bottle for any length of time, except for a trace of blue at the edge of the meniscus, where, by surface action, a little is spread against the interior glass walls. If a sheet of paper be immersed in a saturated solution of the acid, dried in the dark, and then exposed behind an ordinary photographic negative, a very sharp print in blue may be obtained by exposure to sunlight for about ten minutes. The colour instantly disappears in contact with water, so that if a piece of this sensitised paper be wholly exposed to sunlight, one may write in white upon the blue ground by using a pen dipped in water. If, however, the paper with its blue markings be exposed to a gentle heat for a few minutes, the blue changes to black, and the characters are then no longer destroyed by water.

NEW COMPANIES.

LERRAM & CO. (LIMITED).—Capital, 1,000*l.* in 1*l.* shares. Object, to acquire a plaster intended for the prevention, alleviation, and cure of sea-sickness. The regulations of Table A in the first schedule of the Companies Act, 1862, apply.

SOUTH WALES WHOLESALE DRUG COMPANY (LIMITED).—Capital, 20,000*l.* in 5*l.* shares. Objects, to acquire the business of wholesale druggists carried on by Hicks & Bennett, at 20 Womanby Street, Cardiff. The first subscribers are:—E. Shackell, 191 Newport Road, Cardiff; J. Milward, 54 Charles Street, Cardiff; A. Sheen, 23 Newport Road, Cardiff; R. Bowing, Falconby Street, Penarth; W. Hicks, 28 Duke Street, Cardiff; A. Bennett, 20 Womanby Street, Cardiff; C. Dovey, 31 Queen Street, Cardiff. There shall not be less than five nor more than seven directors. The first are:—H. N. Danes, L.R.C.P., A. Sheen, M.D., J. Milward, M.D., and E. Shackell. Qualification, 100*l.* Remuneration, 100*l.*, divisible as they may determine.

THE pharmacy law of New York City has been amended so that the widow or heirs of a deceased pharmacist can continue the business, provided it be conducted by a registered pharmacist.

Trade Notes.

WE have received a new and useful illustrated price-list of druggists' sundries from Messrs. Bourn, Johnson & Latimer, Farnival Street, Holborn.

THE Municipal Board of Angoulême (France) want tenders for a large quantity of sulphuric acid, to be used in the Government gunpowder-works. Tenders to be sent in by June 11.

MESSRS. BEECHAM & SON have issued another wonderful pennyworth of reading under the title of "Beecham's Holiday Number." It is sold in the streets apparently in large numbers. It contains a score of original tales by such authors as James Payn, G. R. Sims, Frederick Greenwood, and Hawley Smart.

MESSRS. BURROUGHS, WELLCOME & Co. send us a sample of their new compressed compound sulphur tabloids. Following the recommendation of Sir A. B. Garrod, M.D., regarding the use of small doses of precipitated sulphur in morbid states of the alimentary canal and in hepatic sluggishness, each tabloid contains 5 grains of the sulphur and 1 grain of cream of tartar. This is an eligible and portable form of the drug which many will appreciate.

MESSRS. RAIMES & Co., of York and Edinburgh, are making a speciality of cachou lozenges in various tints and flavours. Among these are red and white roses, orange blossoms, heliotrope, primroses, violets, &c. The flavours are very delicate, and the style in which the cachous are sent out is correspondingly attractive.

"PHOTOPEL" is a pellet, patented by Mr. H. Williams Jones, F.C.S., and sold wholesale by Messrs. Wyleys & Co., Coventry, and is designed to minimise the trouble of preparing developing solutions for photographic use, and to combine in a portable and permanent form the necessary materials for producing negatives or more finished pictures, as opals, transparencies, &c. The use is very easy. One pellet is simply dissolved in 2 oz. of water, and $1\frac{1}{2}$ drachm of liquor potassæ or more added. Twenty-four pellets are sold in a tube for 1s. 3d. These are well adapted for sale by chemists.

THE well-established wholesale drug business of Messrs. Berkley, Taylor & Co., of Brisbane, Queensland, has been taken over by Mr. Edward Taylor (partner in the old firm), in association with Mr. Evan Prosser (of Messrs. Kempthorne, Prosser & Co.'s New Zealand Drug Company, Limited), principal in the late firm of E. Prosser & Co., wholesale druggists, Sydney. Messrs. Prosser, Taylor & Co., as the new firm is styled, have re-organised their staff, and are commencing the erection of a handsome four-storied warehouse, which will be fitted with all modern conveniences. Messrs. Laughland, Mackay & Baker, of 85 Gracechurch Street, E.C., are agents for the firm in this country.

MESSRS. MEYER BROS. & Co., of St. Louis, U.S.A., send us an elegantly executed card announcing the sale and transfer of their business at St. Louis and Dallas (Texas) to the Meyer Bros. Drug Company, incorporated with a capital stock of \$1,750,000. The company, which a few months previously had taken over the Richardson Drug Company of St. Louis, will in future carry on the combined concerns, together with the branches at New York and Kansas City.

THE drug firm at Fort Wayne, Ind. (U.S.A.), belonging to Meyer Bros. & Co. has not been transferred to the Meyer Bros. Drug Company, along with the other establishments of the house, but will be carried on under the old style by Messrs. J. F. W. and C. F. G. Meyer. These two gentlemen are the original Meyer Bros. who came to America from Lemförde, in Germany, in 1847, and "located" at Fort Wayne, where one of them entered into the service of Mr. Hugh B. Read, who kept a chemist's shop at the Fort. Five years later he started business under his own name, and was joined in 1857 by his brother. Since then the firm has prospered until it finally grew into the four immense establishments representations of which adorn the card to which we have referred.

THE FIRM OF BILLAULT, chemical manufacturers, of Paris, an announcement of whose lithia salts appears in our advertising pages, was founded as far back as 1815, by

M. Robiquet, Professor of Chemistry at the Paris College of Pharmacy, and a M. Boyvcrau. A few years later M. Pelletier, the discoverer of quinine, also joined the firm, and remained a partner in it for some considerable time. M. Billault, who is now the sole proprietor of the concern, first became associated with it in 1869, and had the misfortune in the succeeding year to see his factory at Issy, near Paris, entirely destroyed by the military operations then in progress. After the war of 1870-71 the firm built new works at Billancourt, where its goods are still manufactured, and which occupies some $4\frac{1}{2}$ acres on the banks of the Seine. Besides lithia salts the specialities of the firm include tannin, peroxide of hydrogen, for silk, hair, and linen bleaching, of mercuric sulphate, for telegraphy, iodoform, chloride of methyl, platina-paper, &c. During the last few years the prices of nearly all the firm's products have been lowered to an extent which enables them to compete on foreign markets, and they now do a considerable trade with America, Spain, Russia, and even Germany, in carbonate of lithia, osmic acid, tartar emetic, iodoform, mercurial salts, &c.

THE BORAX COMPANY.—The ordinary general meeting of the shareholders of the Borax Company (Limited) was held on May 27 at Winchester House, Old Broad Street, E.C. The Hon. H. A. Lawrence, who presided, stated that during the year under review the amount standing to the credit of profit and loss account was 28,814*l.*, and after paying interest due in July and January on the first mortgage debentures, amounting to 19,500*l.*, and writing off 3,235*l.* for depreciation of the company's buildings and plant, there remained a balance of 6,060*l.*, which, though not sufficient to declare a dividend, was yet, considering the difficulty of organising and establishing the business, satisfactory. Their position with regard to the rest of the trade, though extremely strong, was to some extent rather peculiar, inasmuch as they were not only possessors of the raw material of borax, but were also owners of a large factory in France, and the only one of any importance in that country, and these facts caused them to be looked upon with considerable suspicion among those in the trade. The directors had made contracts with the leading borax manufacturers of Europe which ensured a minimum sale of 4,500 tons of boracite per annum, being a considerable increase on the quantity sold during the past year, and that was in addition to the company's own requirements at Maison-Laffitte.

Personalities.

THE business carried on lately by Mr. Blackman, Broad Street, South Molton, has been purchased by Mr. Harris.

MR. THOMAS TYLER, formerly a chemist and druggist of Kidderminster, has opened a new business at Barbonrne Road, Worcester.

MR. LUDWIG MOND, the president of the Society of Chemical Industry, has contributed 100*l.* to the Royal Institution Fund, for the promotion of original research.

MR. J. J. GLOVER, of Bewdley, has taken the chemist's business at 2 Beauchamp Terrace, Malvern, from Mr. Hill, who has heretofore carried it on, and who now retires in consequence of ill health.

MR. JOSEPH BOSISTO, the eminent eucalyptus distiller, who has for many years represented the borough of Richmond in the Victorian Legislature, was rejected by the electors of that place at the last general election.

MR. STALLMAN, the head of the New York drug firm of Stallman & Fulton, is on his way to this country, and intends, we understand, to cover a considerable portion of the old world before returning to America.

MR. G. A. CUNLEY, of 75 Crescent Road, Sheffield, formerly a partner in the firm of Cubley & Preston, Sheffield, has entered into an arrangement with Messrs. Harriugton Bros., of Cork, to represent them in England and Scotland. Their principal products are magnesia and fine chemicals.

MR. J. CARRUTHERS ALLAN (son of Mr. W. Allan, pharmaceutical chemist, Dumfries) has resigned the position of Consul for the Danish Government at Lagos, West Africa, in

prospect of his removal to Brass, as superintendent [to the African Direct Telegraph Company. Mr. Allan was lately presented at the Danish Court.

WE mentioned last week that Mr. Charles Ferdinand Keele, of Tottenham Court Road, the defendant in the sal volatile case at Bow Street, was not on the register of chemists and druggists. The registrar of the Pharmaceutical Society has also given publicity to the same fact. Mr. Keele is a duly qualified medical practitioner.

THE popular composer, May Ostler, herself, we believe, not entirely disconnected with the pill profession, has lately produced "The Beecham Waltz," which is published by Howard & Co., 25 Great Marlborough Street, W. The nominal price is 4s. It has an extremely pleasing refrain, and will certainly be a popular piece of dance-music in many ball-rooms.

DR. CHARLES TYSOE HARVEY (L.K.Q.C.P. Ireland), of Southport, who died a few days since at the age of 64, had the advantage of being "martyred" for his opinions some thirty years ago. The medical faculty of Aberdeen University refused to allow him to present himself for examination in 1856 unless he foreswore his homœopathic opinions, but this he refused to do. It was soon afterwards made illegal for any licensing body to make faith in any theory of medicine an essential or a disqualification.

MR. ARTHUR H. ELLIOT, Ph.D., Professor of Chemistry and Physics, and Director of the Laboratories of the New York College of Pharmacy, is an Englishman, and some twenty years ago was in the employment of a well-known pharmacist in the West-end of London. After that he studied at the School of Mines, was an assistant chemist in Spence's alum-works, and in 1872 went out to New York. Since then he has filled in his time partly by teaching and partly as a consulting chemist, and his connection with the New York College dates from 1881.

MR. WILLIAM R. WARNER, the Philadelphia sugar-coated pill manufacturer, referred to by us in a recent note as a "belated traveller" to the Paris Exhibition, sends us a note from Paris, saying that "it will be a cold day when he gets left," and explaining that he left New York on April 27. Arrived at Liverpool Sunday, May 5. Went to London by special train and crossed the channel at midnight, arriving in Paris 6.30 A.M. on Monday. He witnessed the ceremonies of the opening of the exhibition and the grand illumination that followed, and thinks the *Oil, Paint, and Drug Reporter* needs a calendar.

DR. HENRY H. RUSBY, the Professor of Botany and *Materia Medica* at the New York College of Pharmacy, is the subject of a biographical notice in a recent issue of the *Pharmaceutical Record*. Dr. Rusby, who is one of the principal American botanists, is chiefly known in Europe as having been the commissioner of Messrs. Parke, Davis & Co., Detroit, to the Amazon region of South America, to investigate the medicinal plants of those territories. He had formerly, accompanied by his brother only, undertaken two similar trips to the Arizona territory in the south-western part of the States, and traversed those dangerous parts of it in the occupation of the Apaches, one of the most bloodthirsty tribes of Indians still existing in America. Dr. Rusby was born at Franklin, in New Jersey, thirty-four years ago.

PHARMACY IN INDIA.

MESSRS. F. STEARNS, of Detroit, U.S.A., like the Germans, are selling B.P. extracts at half the price charged by English houses.

MESSRS. JEROME & Co. have opened a dispensary at Worlee, Bombay, and have a medical man, Dr. Jokum Frank Pereira, to superintend the dispensing.

THE business of Shireffs & Co., Allahabad, has changed hands. Mr. A. Wingrave, lately chemist with the firm, is about to enter business for himself.

SHIRCORE & Co. have given up their druggist's business at Cawnpore, which has been taken over by Mr. Cresswell, of Calcutta, who continues it under the style of Cresswell & Co.

MESSRS. TREACHER & Co. (LIMITED) have opened a branch at Mahabeshwur, the popular Bombay hill station, for the season. H.R.H. the Duke of Connaught has, therefore, his "chemists in ordinary" on the spot.

MR. CHARLES W. WHITE has arrived in Calcutta, after a very successful trip as far north as Peshawur. He hopes to go on to Rangoon, and from there to Mandalay, where there are already a number of small drug shops and dispensaries.

MR. D. F. DE SOUZA, a native gentleman of Goa and a well-known chemist, is dead. The Goanese are indebted to him for some excellent preparations—one, "The Massa Angelica." The *Times of India* says:—"He was a clever man, but modest and unassuming."

MHOW, Central India, still wants a chemist's shop. There is a fair chance of a fortune in ten years or less for any enterprising young pharmacist, with 750*l.* or 1,000*l.* to back him up, who will open at Mhow. Two British regiments, a general and staff, and a civil population to cater for.

THE *Times of India* thanked Messrs. Treacher & Co. (Limited) for their action against the Bombay municipality to abate a nuisance caused by the scavengers' carts passing their premises in a filthy condition. Mr. W. T. Tucker, the manager living at the Byculla establishment, stated in his evidence that he believed the cause of a serious illness from which he had just recovered was the terrible stench from the municipality carts. Mr. Tucker had to go to the hills to recruit his health.

INDIAN NATIVE DRUGS.—Lord Reay, the Governor of Bombay, laid the foundation-stone of the Framji Petit Laboratory of Scientific Medical Research on April 9 last. Mr. Framji Dinshaw Petit, in addressing the assembly, said his father had long been cherishing a wish to introduce and to bring into prominent notice the properties of Indian drugs, which are known to be in many cases very valuable, and which are extensively used by native hakims (doctors or quacks) with marked success, but not by the Indian medical graduates, owing to the knowledge of these being very limited, by reason of their never having been scientifically and efficiently tested by men capable of doing so. Mr. Petit has given Rs. 75,000 (5,000*l.*) to enable the Government to erect a suitable building.

THE MANUFACTURE OF QUININE is on the increase, but its sale to the general public by Government will probably never to any extent compete with importations. "The Government cinchona plantations interfere greatly with private enterprise." So says the Madras Chamber of Commerce, who memorialised Government on the subject. The Government reply is to the effect that until the experiment of producing a febrifuge which will be effective, as well as so cheap as to be within the means of the poor, has had a full trial, the question of selling or reducing the Government cinchona plantations cannot be entertained. The only assurance that Government can give is that they will not be extended. If the Government of Madras will not extend its plantations we may rest assured that its quinine manufacture will never be on a very extensive scale.

THE NEW MERCHANDISE MARKS ACT for India is causing a great deal of trouble to importers, the custom-house authorities refusing to pass out goods not labelled with the name of the manufacturer and his address; so the chemist who has been in the habit of purchasing packed goods from England cannot now import them. Example:—Mr. Blank, chemist, Bangalore, orders from a well-known house twelve dozen bottles of Parrish's food, to be labelled with his name and address; thus, "Blank's Parrish's Food, Blank, chemist, Bangalore." The goods come to hand at Madras, but the Customs refuse to pass them because each bottle is not properly labelled with the name and address of the maker. In Bombay a chemist has thirty-four crates of empty bottles in detention, because each bottle bears his own name and address moulded in the glass. The new Act is a piece of hasty legislation and must be altered without delay, or it will do more harm than good.

BANKRUPTCY REPORTS.

WILLIAM HOW, Upwey, Dorset, Chemist and Druggist.

THE first meeting of creditors under the above failure was fixed for May 28, at the office of the Official Receiver, Salisbury, but no creditors were present. The debtor's statement of affairs showed liabilities, expected to rank, amounting to 245*l.* 17*s.* 6*d.*, and assets 24*l.* 5*s.* 7½*d.*, thus leaving a deficiency of 221*l.* 11*s.* 10½*d.*

The failure was attributed to personal illness and depression in trade. According to the Official Receiver's report the receiving order was made on the petition of the debtor himself. "It would appear that he carried on business as a chemist and druggist at Dorehester up to January of the present year, when he sold the business and offered his creditors 6*s.* 8*d.* in the pound in full discharge of their debts, but the proposal was not unanimously accepted. The debtor has since lived at Upwey, near Weymouth, and Bournemouth. He states that he did not become aware that he was insolvent until January, 1889, when he was obliged to sell his business. His solicitor has requested me to sell the furniture by valuation, which I have consented to do. Several small accounts are stated to have been paid by the debtor recently. He states he is not in a position to make an offer to his creditors, and has been adjudged bankrupt on his own petition." The Official Receiver will wind up the estate. The principal creditors are:—

	£	s.	d.
Bourne, Johnson & Latimer, London..	..	7	8 5
Brigg, W. O., & Co., Bristol ..	..	6	16 4
Dunn, J., Dorehester ..	..	50	0 0
Evans, Lescher & Webb, Bartholomew Close ..	..	9	19 9
Taddy, Jas., & Co., Minorities, E.O. ..	..	14	7 8
Lloyd & Co., London ..	..	35	2 6
Silverlock, H., London ..	..	5	10 0
Upper Assam Tea Company, London ..	..	10	0 0

Re THOMAS ROBERTS, Holyhead, Chemist.

AT the Bangor Bankruptcy Court on May 27, before his Honour Judge Lloyd, Mr. R. A. Griffith applied for the discharge of this debtor. The Official Receiver reported that the liabilities amounted to 749*l.* 13*s.* 3*d.*, and that the estate had only realised sufficient to pay a dividend of 1*s.* 9¾*d.* The debtor had traded after becoming aware of his insolvency, and he had given undue preference to one of his creditors. No creditor appeared to oppose, but the Assistant Official Receiver (Mr. H. Roberts) stated that several of the creditors were opposed to the granting of an unconditional discharge. The debtor was now managing the business on behalf of his brother. His Honour granted the discharge subject to the dividend being increased to 2*s.* in the pound.

Re GEORGE W. BENSON, Great Portland Street, W., Retail Chemist and Druggist.

THIS bankrupt attended a sitting of the London Bankruptcy Court on Friday last, before Mr. Registrar Giffard, for his public examination. His accounts show gross liabilities, 986*l.* 4*s.*, of which 918*l.* 19*s.* 7*d.* were unsecured, and assets valued at 17*l.* 4*s.* 5*d.*, but absorbed in the preferential claims. Mr. Howell, on behalf of the Official Receiver, conducted the examination, and Mr. Stokes appeared for the bankrupt. In the course of the examination Mr. Benson stated that he started business as a chemist and druggist about 3½ years ago with a capital of 200*l.* borrowed from his father, and, within the first twelve months of his trading, he was compelled to file a petition for liquidation, and then got rid of his liabilities by paying a composition of 5*s.* in the pound. He was assisted in the matter of the composition by further advances from his father, who now appeared as a creditor for 400*l.* An action for libel was brought against him, and judgment given against him in February last for 118*l.* Questioned respecting the books of the trading, the bankrupt said he only kept a day-book, and had not kept any cash-book or account of the borrowed moneys. In 1886 he deposited the lease of the premises with his father as part security for the debt, but it was now valueless, having become voidable upon the bankruptcy proceedings being taken. He had given a promissory note as security for a friend, and

subsequently gave a bill for the amount; and now admitted that at the time of giving such security he could not have met all his debts had he been called upon to do so. The profits of the last year's trading amounted to about 200*l.*, and he had drawn 3*l.* or 3*l.* 10*s.* weekly from the business in respect of personal expenses. In July last he could have sold the business for 600*l.*, and, had he accepted that offer, there would have been sufficient to pay the creditors in full. The examination was ordered to be concluded.

Re HENRY BERGER CLARKE, late of 37 Great Tower Street, E.C., Chemical Merchant.

AT a sitting at the London Bankruptcy Court on Friday, before Mr. Registrar Giffard, this bankrupt, who failed recently with unsecured liabilities of 1,491*l.* 19*s.* 4*d.*, and assets estimated to produce about 100*l.*, attended for his public examination. Mr. Howell appeared for the Official Receiver; Mr. Sidney Woolf for Pontifex & Wood (Limited), the petitioning creditors; and Mr. Herbert Reed for the bankrupt. Replying to Mr. Howell, the bankrupt said his business was a general one in chemicals. He had been trading alone for eleven years, and, for the greater part of the time, had been successful. In August last he was compelled to arrange with the creditors for a composition of 5*s.* in the pound, having previously made some heavy losses by bad debts. The market at that time was in a very depressed state, and had been so for the past two or three years. The bad debts during that period amounted to 1,000*l.* He attributed his failure mainly to the two causes before mentioned. Five of the creditors in August last refused to accept the composition scheme, the petitioning creditors being amongst the number. Part of that debt was in respect of accommodation transactions, it being arranged about three years ago that they should draw upon him. He contended that as a matter of fact they drew upon him largely in excess of the value received. These transactions commenced at the end of 1886, at which time he did not consider that he was insolvent, although he confessed now that he must then have been so. He did not realise the fact of his insolvency until August last, although the books were overhauled by an accountant twice a year. It was in consequence of pressure put upon him by Pontifex & Wood that he called in a professional accountant, and then ascertained in August that he was insolvent, greatly to his surprise. Prior to that he had never been in any difficulties. Mr. Woolf then examined the bankrupt at some length respecting the accommodation transactions, and, after Mr. Reed had put a few questions in cross-examination, the bankrupt was allowed to pass.

Gazette.

PARTNERSHIPS DISSOLVED.

Clegg & Co., Tyldesley, aerated-water manufacturers.

Hoiroyd & Errington, Manchester, oil crushers and refiners, oil and grease blenders, and manufacturers of ebonite harness reviver.

Stoner & Son, Brighton, dental surgeons.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDER.

Mullings, Samuel Edward, formerly of Gower Street, W.C., then of Upper Norwood, and afterwards of Redhill, now of Crawley, surgeon-out of practice.

NOTICES OF DIVIDENDS.

Carter, Thomas, & Carter, James Harrison (trading as Carter Brothers), Sheffield, druggists and drysalters—first div. of 4*s.* 6*d.*; Carter, Thomas (separate estate), Sheffield, druggist and drysalter (trading with Carter, as Carter Brothers)—first and final div. of 20*s.*; Carter, James Harrison (separate estate), Sheffield, druggist and drysalter (trading with Carter, as Carter Brothers)—first and final div. of 13*s.* 4*d.*; June 6, Official Receiver's office, Sheffield.

Gray, Richard Thomas, Truro, manager of soapworks—second and final div. of 10½*d.* (3*s.* 9½*d.* on new proofs), June 12, Official Receiver's office, Truro.

Milner, Edward, Micheldever, Hampshire, and New Cavendish Street, London, surgeon—first and final div. of 1½*d.*, June 3, Official Receiver's office, Southampton.

Ross, Arthur, jun., Cripps, Isaac, & Cripps, Henry (trading as Cripps, Ross & Co.), Swan Mead, Bermondsey, size and gelatine makers—first and final div. of 2s. 2d., June 5, Messrs. A. C. Palmer & Co. 7 and 8 Railway Approach, London Bridge, S.E.

Vernon, William, late of Great Bardfield, now of Framlingham, physician and surgeon—first and final div. of 13s., June 6, Official Receiver's offices, Ipswich.

The following amended notices are substituted for those published in the *London Gazette* of May 31:—

Carter, Thomas, & Carter, James Harrison (trading as Carter Brothers), Sheffield, druggists and drysalsters—first div. of 2s. 6d. June 13, Official Receiver's offices, Sheffield.

Ross, Arthur, jun., Cripps, Isaac, & Cripps, Henry (trading as Cripps, Ross & Co.), Swan Mead, Bermondsey, size and gelatine makers—first and final div. of 1s. 11½d., June 5 and any Wednesday following, Messrs. A. C. Palmer & Co.'s, 7 and 8 Railway Approach, London Bridge, S.E.

ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

Lake, William Wellington, St. Mary's Road, Walthamstow, surgeon—discharge granted.

Slack, Joseph Isaac, St. John's Road, Hoxton, mineral-water manufacturer—discharge suspended until the end of the year.

EXTRACT FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

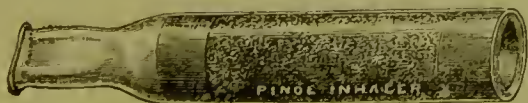
The following deed of arrangement with creditors has been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Wetherhead, Emil, Whitworth Road, Grange Town, chemist and druggist. Trustee: G. Catchpole, 63½ Wilson Street, Middlesborough, accountant. Date, May 31; filed, June 4; unsecured liabilities, 83l. 17s. 8d.; estimated net assets, 13l.; creditors fully secured, 7l. The only creditors over 10l. are Richardson & Co., Leicester, 35l. 3s. 4d.

Notes of Novelties.

PINOL-EUCALYPTIA DRY INHALER.

NOTHING could be more convenient for the application of antiseptic inhalations to the throat, bronchial tubes, and lungs than the very neat and cheap pocket inhaler which is shown in the engraving, and is supplied to the trade by Messrs. Burroughs, Wellcome & Co. It is but very



slightly larger than the engraving here produced, and consists of a small glass cylinder brought out to a mouthpiece at one end. The body of this cylinder is protected by a leatherette jacket, and within is packed with dry sawdust, a perforated diaphragm at either end keeping the packing in place. The sawdust being impregnated with pinol, eucalyptia, or such other inhalant as is desired, the inhaler is ready for use. It can be carried in the waistcoat pocket, and the vapour inspired at any odd moment of the day. The inhaler, with vials of pinol and eucalyptia, all very neatly finished and packed into a small case, is supplied to sell retail at 1s. 6d. It is so easily employed and so convenient to carry about that the chief obstacle to the general employment of antiseptic inhalations in pulmonary and bronchial complaints is effectually removed.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

PETERS—SUTTON.—On May 30, at St. Peter-per-Mountgate, Norwich, by the Rev. Dr. Cunningham Geikie, assisted by the Rev. W. Hudson, Mr. Leonard C. Peters, Royal Marines Light Infantry, to Miss Helen Annette, third daughter of Mr. Francis Sutton, F.I.C., Norwich.

DEATHS.

BRADLEY.—On May 23, at The Castle Pharmacy, Pontefract, Yorks, Mr. William Bradley, chemist and druggist (late of Nottingham and Torquay). Aged 33.

COLE.—The late Mr. William Henry Cole, whose death we briefly announced in our last issue, was born at Pulham in 1819, and educated at the grammar-school in Norwich. When a young man he entered the service of his uncle, Mr. John Cole, who kept a chemist's shop at 101 Holborn. This is now between fifty and fifty-three years ago, and at that time chemical industry was practically non-existent in the United States, and all the finer chemicals used in that country had to be imported from Europe. Mr. John Cole, the deceased gentleman's uncle, happened to open up business in this line with Messrs. Powers & Weightman, now one of the largest firms of chemical manufacturers in the States, but then of much humbler dimensions, and keeping, in fact, we believe, a retail drug-shop in Philadelphia. As the firm of Powers & Weightman progressed the late Mr. John Cole's business also grew, and ultimately he devoted himself entirely to the American trade. Selling his business in Holborn to the firm now known as Willows, Francis & Butler, Mr. John Cole established himself in Walbrook, or one of the streets in its immediate neighbourhood, and was subsequently succeeded by Mr. W. H. Cole, who founded the firm of W. H. Cole & Co., still carrying on business as American merchants and bankers at 85 Gracechurch Street, E.C. Mr. W. H. Cole had not taken an active interest in the affairs of the firm for some years, but had retired to West Woodhay, in Berkshire, where he died, and where his funeral has also taken place. One of his sons, we believe, is still a member of the firm.

HAENSEL.—The death, at Leipsig, is announced of Mr. Heinrich Haensel, the founder of the well-known essential oil factory still carried on under his name at Pirna, in Saxony. Aged 74.

SAXLEHNER.—Andreas Saxlehner, the proprietor of the famous bitter springs of Hunyadi Janos, in Hungary, died at Buda-Pesth a few days ago. The deceased gentleman was a retail cloth merchant in Buda-Pesth, and although the possession of the ground on which the springs are situated and their exploitation made him several times millionaire, he was content to continue his cloth business as before. Aged 77.

WOOLRICH.—On May 26, Mr. Francis Woolrich, chemist and druggist, York Road, Wandsworth. Aged 51.

It is reported, says a New York contemporary, that Mexican druggists do not sell postage-stamps, and that they are so given to the habit of taking things easy that many of them wear a chest protector made of sticky fly-paper when they take their afternoon siestas.

WILL PHOTOGRAPHY PROVE IT?—It is stated that the King of Wurtemberg has resolved to know whether the moon is inhabited, and, in order to resolve this interesting problem, has ordered to have made, in the best possible conditions, photographs of the moon, and then to enlarge the negatives one hundred thousand times.

TO MAKE SHEET WAX.—Melt pure, clean wax in hot water contained in a deep tin pan. Then fill a smooth, straight bottle with ice water. Soap the bottle and dip it deliberately in the tin pan two or more times, according to the thickness you desire your wax. After the last dip, as soon as the wax hardens to whiteness, cut a line through it and remove it from the bottle as quickly as possible. Spread to cool and straighten out smooth while warm. Continue this process until all the wax is made into sheets.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., June 6.

BUSINESS has been rather quiet this week, owing to the approach of the holidays and to the Epsom races, and now the markets are virtually closed until after the middle of next week. In the drug and chemical trade there is no great change to report. Fine castor oil is reported dearer, and glycerine is also slowly moving upward. Quassia wood still remains at its high price. For vanilla a further rise does not seem unlikely. Oils of star-anise, sandalwood, and dillseed look better, and the French oils which are now being distilled appear to be doing well. Of ippeacuanha, musk, and rhubarb there have been rather heavy arrivals, but Cape aloes, which are much wanted, have not come to hand. Copaiba balsam is reported easier. The cinchona auctions passed off quietly. In chemicals the principal event of the week is a rather sudden and important advance in quicksilver. Antimony and tartaric acid also rising. Copper sulphate and morphia unchanged. Quinine drooping. As regards oils, drysalteries, and spices, we have to note higher rates for cocoa butter, Kurpah indigo, gambier, castor oil, China galls, cotton-seed, linseed, turpentine, and petroleum. Cassia lignea is cabled dearer from China, and pimento is also firmer. Shellac is dull and certainly not improving for delivery, though on the spot the price keeps up pretty well. Turmeric, caustic soda, and pearl and potashes are lower, but soda crystals have advanced. East Indian gum arabic again sold at some reduction to-day.

THE NORTH OF ENGLAND chemical markets, writes our correspondent, remain exceedingly quiet, and scarcely any one of the heavy chemicals presents any new feature whatever. Certain signs of coming improvement, however, are apparent, and may become more pronounced in a few days.

ALTERATION IN THE SAMPLING OF UNWORKED SHELLAC.—At the drysaltery auctions on Tuesday attention was called to the unsatisfactory manner now in vogue for sampling "unworked" shellac, and after some discussion it was resolved that in future, when unworked shellac is offered for sale by auction, one case out of every ten offered shall be sampled.

NO DRUG SALES NEXT WEEK.—At the drysaltery sales on Tuesday, Mr. S. Figgis suggested that perhaps it would be better not to hold any drug sales next week, owing to the intervening holidays. So far as his firm was concerned, at any rate, he thought that they should not have a sale unless importers were to insist upon holding one. At the gum auctions to-day the matter was again brought forward, and it was then decided that the druggists should be informed on 'Change that no drug sales will be held next Thursday.

ADULTERATED CITRONELLA OIL.—An examination of three further samples of this oil, taken from parcels which are now offered for sale by Mincing Lane brokers, fully confirms the statements made in our recent Editorial Note, the results specially emphasising the importance of the observations regarding the specific gravity of genuine oil, which we have said should not be under 0.890. The three samples which we now speak of were under that figure, and all were found to be adulterated with kerosene. The actual specific gravities were:—Sample D, 0.887; sample E, 0.8855; and sample F, 0.8865. The extent of the adulteration, judged by shaking with four times their volume

of the dilute spirit (19 in 24) and observing the amount of undissolved oil, we found to be in D and F, 20 to 25 per cent., and in E, 15 per cent. These figures are, of course, only approximate, but they are likely to be under rather than over the percentages actually present.

EXTENSION OF CINCHONA-GROWING IN CEYLON AND JAVA.—A parcel of some 15,000 lbs. of bark from hybrid *Robusta* trees, grown on the Cannavarelle estates, in Ceylon, has just been analysed in Colombo with the result of giving 5.87 sulphate of quinine, and the proprietors of the estate are now engaged in felling some more of their virgin forest in order to plant up the space with this variety of cinchona. At a recent meeting of Java cinchona planters it was stated that the seed from which the rich barks, equalling 7 to 10 per cent. of sulphate of quinine, which have been brought to market recently from some of the Java plantations, were raised, was given by the Government to a few favoured planters only. But in the Government gardens large quantities of trees have been raised from this seed, of which, up to the present time, not a pound of bark has yet been gathered. When, however, these trees shall have arrived at maturity the Government gardens, taking their bark at an average of 7 per cent., will yield sufficient bark to furnish 4,500,000 oz. of quinine.

ACID (CARBOLIC).—A good demand exists for all grades, especially for crude carbollic acid for quick delivery, though there is no such lack of offers for delivery later in the year. Bulk is quoted at 1s. 2d. per lb. for pure 40° C., and 1s. to 1s. 1d. per lb. for lower grades.

ACID (CITRIC).—Quiet, but unaltered in price, at 1s. 4½d. per lb.

ACID (OXALIC) steady at 4½d. per lb. *Sal acetos* very quiet at 6½d. per lb.

ACID (TARTARIC).—The market is firm, and prices have, if anything, a hardening tendency, though not a very pronounced one. We think that the nearest prices which can be quoted are: *English*, 1s. 3¼d. to 1s. 3½d.; *Foreign*, 1s. 3d. to 1s. 3¼d. per lb. At the former price the foreign agents report a rather considerable business.

AMMONIA SALTS.—*Carbonate*, 3¾d. per lb. *Sal ammoniac* remains firm at 36s. per cwt. for first, and 34s. per cwt. for second quality. *Sulphate* dearer since last report, and closing at 12l. 2s. 6d. for Beckton make, 12l. for 24 per cent. grey London, and 11l. 18s. 9d. Leith and Hull.

ANTIMONY is again dearer, from 58l. to 60l. per ton being now required. Some of the antimonial preparations have also been advanced in price, and *Antim:crocus* is now held at 50s. (powdered 52s.); *Antim:nigr.*: 40s. to 42s. per cwt.

ARSENIC remains scarce and firm on the spot at 13s. 6d. per cwt. for white powder landed.

BALSAM COPAIBA.—Fine *Maranham* balsam has been offering rather more freely, and somewhat lower rates have been accepted—viz., 2s. 8d. per lb.—while it is said that good *Maranham* now offers at 2s. 6d. per lb.; but it is thought that buyers are so bare of supplies that they may soon be forced to pay higher prices again.

BORAX steady at 28s. 6d. per cwt., second hand.

CALABAR BEANS.—There has been a drop in Liverpool, and business has been done at prices gradually receding to 8¾d. or 9d. per lb. The steamer *Lagos*, which arrived at Liverpool from the African West Coast two or three days ago, only brought 14 cases Calabar beans, and the *Roquette*, which arrived a day later, only carried 4 cases.

CAMPHOR.—On the spot the market is rather quiet, and no further business has transpired, raw *Japan* being nominally 105s. per cwt. For arrival the latest business recorded is that in Japan at 98s., "c.i.f." terms, to which we have already alluded. Refined camphor firm, but unchanged.

CASCARA SAGRADA.—For the moment 1s. 8d. to 1s. 10d. per lb. is quoted on the spot here for good quality bark; but the future of the article is very uncertain, and, from all we can hear, we should think it inadvisable to buy more than is required for immediate use.

CHAMOMILES dull and unaltered.

CINCHONA.—At Tuesday's auctions a rather smaller quantity of bark was offered than had been originally anticipated, the aggregate of the catalogues being:—

	Packages	Packages
	1,329 of which	1,078 were sold
Ceylon bark	443	352
East Indian bark	289	289
Java bark	555	503
South American bark		
Total	2,616	2,222

The demand was again very quiet, competition being almost absent from the sales, except in the case of a few medium and high-grade parcels. The average quality of the bark was again rather poor, and yellow and grey barks were very scantily represented. The proportion of root bark to that of trunk and branch offered, especially from Ceylon, was perceptibly larger than has been the case for several months, though there may be no special significance in this feature. We counted 152 packages of root bark among the 2,222 packages sold at the auctions; and these included 109 packages from Ceylon, weighing about 32,263 lbs., or over 10 per cent. of the entire supply from that island. The unit, we should say, was about 1d. to 1½d. per lb., according to nature of the bark sold. The following are the approximate quantities purchased by the principal buyers:—

	Lbs.
Agents for the Mannheim and Amsterdam works ..	137,930
„ the American, French, &c., works	126,957
„ the Brunswick works	125,757
„ the Auerbach works	50,622
„ the Frankfort o/M. and Stuttgart works ..	12,625
Messrs. Howards & Sons	7,780
Mr. Thomas Whiffen	5,691
Sundry druggists, &c.	21,903
Total sold	493,215
Bought in or withdrawn	91,171
Total quantity catalogued	580,386

It should be well understood that the mere weight of bark purchased affords no guide whatever to the quinine yield represented by it, firms who buy a small quantity of bark by weight frequently taking the richest lots, and *vice versa*. An analysis of the catalogues gives the following prices for sound bark:—

CEYLON BARK.—*Original.*—Yellow varieties.—Chips, of which only a few parcels were sold, small and weak mixed to fairly good, 2½d. to 4d. per lb. *Red varieties.*—Chips (very largely represented), ordinary woody to fair, mixed with branch, 1½d. to 2d.; medium to good strong, 2½d. to 4½d.; stem chips, mixed with shavings, 1½d. to 4d.; fair to good spoke shavings, 2d. to 3½d.; dust, 2d.; root and chips, mixed, 1½d. to 2d.; fair but short and broken druggists' quill, 5d. to 6½d.; root, weak to fine strong, 1½d. to 6d. per lb. *Grey varieties.*—Chips, 2½d. to 3½d.; root, 6d. per lb. *Renewed.*—Yellow varieties.—Chips and shavings, mixed, good strong, 7d.; a small quantity of fine chips, 7½d. to 8d. per lb. *Red varieties.*—Ordinary common chips, 1½d. to 2d.; medium to fair ditto, 2½d. to 4d.; good rich, 5½d. to 6½d. per lb. *Spoke shavings, fair to good, 3½d. to 5d.; good rich, 6d. to 7d. per lb. Grey varieties.*—Stem chips, 6d. to 6½d.; shavings, 7d. per lb.

EAST INDIAN BARK.—*Original.*—Yellow chips, 2d.; red, ordinary to fine bright stem chips, 2d. to 5d.; spoke shavings, 3d. to 3½d.; thin broken quill, mixed with shavings, 2d. to 2½d.; ordinary brown druggists' quill, 3d. to 3½d.; broken quill, mixed with stem chips, 4d.; root, 2d. to 2½d. per lb. *Grey chips, 3½d. to 5d. per lb. Renewed red chips, 2½d. to 3d.; good stem chips, 4½d. to 5d.; spoke shavings, fair mixed, with siftings, to good rich, 2½d. to 6d. per lb.*

JAVA BARK.—Yellow chips, thin, mixed with branch, 2d. to 2½d.; fair to good rich, 4d. to 6d.; root, 5d. to 6d. per lb. *Red chips, 2½d. to 3d.; ditto renewed shavings, 3½d. to 5d. per lb.*

SOUTH AMERICAN BARK.—Of 406 packages *Calisaya* 354 were sold; fair to good cultivated Bolivian quill, 7d. to 8d.; thin but bright ditto, 6d. to 6½d.; dull and small mixed, 5d. to 5½d. per lb. For a parcel of fine strong quill, said to analyse about 9 per cent., an offer of 10½d. per lb. was declined, 11d. being the price. Of *Cuprea* 149 packages sold at 2d. to 2½d. per lb.; a few lots at 3d. per lb.

The arrivals in London since our last report have been 1,156 packages. The shipments from Ceylon from October 1 up to May 9 had been: 1888-89, 7,268,823 lbs.; 1887-88, 6,862,787 lbs.; 1886-87, 9,276,825 lbs.; but, according to Messrs. Böhlinger & Sons, they had fallen, by May 26, to about 7,650,000 against 7,850,000 in the previous season, an actual diminution of about 200,000 lbs. The arrivals of bark from the country to the shipping port of Colombo are also said to have been very small lately. On the other hand, a correspondent at Colombo, writing to a local journal at the same time, states:—“There is at present a large quantity of bark, some of which has been held by some proprietors for three years (I know one who has held all harvested on his estates since November 1885), awaiting a rise in the market.”

COCAINE.—The lowest price for German cocaine in bulk remains 16s. per oz.

COCOA BUTTER.—At the monthly auctions on Tuesday 300 2-cwt. cases of *Cadbury's* butter of cocoa sold at an advance of about ½d. per lb., the first lot realising 12½d., and the price then falling to 11½d. per lb.

CREAM OF TARTAR.—There is very little change in the market, and 95s. to 95s. 6d. per cwt. may be quoted as the nearest price for first white French crystals.

GALLS.—*China* remain firm and dear, the last spot business reported having been at 63s. 6d. per cwt., but that price has since been refused. From *China* cables came yesterday, quoting as much as 65s. 9d. “c.i.f.” terms, steamer shipment to London, or 60s. “c.i.f.” for ordinary “unsatisfactory” quality.

GAMBIER.—The week opened rather quietly, but as it proceeded a much firmer tone became apparent, and several transactions of importance are reported, the article again closing dearer:—*Cubes*, on the spot, good free, 44s.; damaged, 41s. 6d. to 42s.; *Block* spot, 28s.; now due (per *Nestor*) 27s. 9d.; May-June, 27s., rising to 27s. 3d.; June-July, 26s. 9d.; July-August, 26s. 4½d. to 26s. 6d. per cwt.

GLYCERINE.—The tendency of the market for distilled glycerine is higher, and prices range generally from 64s. to 67s. for double-distilled s.g. 1.260, though there is some talk of asking more money.

GUM ARABIC.—Privately the demand for East Indian gum arabic has been very dull, and only a few small private transactions have been reported at 78s. 6d. for Aden sorts, and 92s. 6d. to 95s. for fair *Kurrachee Amrad*. At the auctions held to-day there was a good supply, but with slack demand the bulk was bought in. *Ghatti* sold at an irregular decline of from 2s. 6d. to 10s., *Bombay Amrad* of 5s. *Australian* gums quiet. *Cape*, fine soft ambery, 5l. 17s. 6d.; block to fair glassy brown, 15s. to 30s. *Mogadore*, good white, 6l. 10s.; blocky to good *Mogadore Amrad*, 40s. to 65s. *Ghatti*, good bright to fine selected, 65s. to 88s.; fair to good drop, 29s. to 36s. 6d. *Australian*, fine frosty, but dusty, drop, 62s.; good to dark woody mixed, 45s. 6d. to 33s.; blocky, 20s. to 41s. *Gehzirah* dearer. A parcel of siftings was sold privately to-day at 96s. “c.i.f. London.” In Liverpool the market remains very dull indeed, and the only business which has recently transpired is in *Egyptian Amrad* at 95s. up to 14l. 10s. per cwt., and in ordinary to fine picked *Brazilian* at 45s. to 70s. per cwt.

GUM COPAL.—On June 18 a very heavy auction-sale of copal will be held in Holland. It will embrace 250 tons, including a large quantity of soft copal, which is very scarce, and is expected to bring high prices.

INDIGO.—Privately an unusually good demand for East Indian indigo is reported, *Kurpahs* especially having been in request for the Continent at a slight advance, and *Bengals* for the home trade at steady rates. There will be public auctions on July 8.

INSECT FLOWERS.—The first samples powdered flowers of the new crop are now arriving in London. The powder shows a very fine quality, and is quoted rather higher than old crop, the prices being: old, 1s. 4d.; new, 1s. 6d. per lb. The new flowers are said to have suffered so much from the damp weather that they cannot be properly shipped until July or August. Old open flowers are quoted at 96s. per cwt., “c.i.f.” terms.

IPECACUANHA.—We have received 95 packages *via* Ant-

werp this week, but they have passed into the hands of what is believed to be a very firm holder.

JUNIPER BERRIES.—Prices have slightly advanced lately, owing to the anticipated consumptive demand which generally sets in about this season.

LIME-JUICE.—It is stated that higher prices have been paid in consequence of a sudden demand, and business at 1s. 2d. to 1s. 4d. per gallon is said to have been transacted.

LINSEED firm and rather scarce at 46s. to 48s. for *Dutch*, and 41s. to 43s. for *Russian* and *Turkish* seed, per 424 lbs. *Bombay* seed, 43s. per 416 lbs.

MAGNESIA SALTS.—*Carbonate* keeps fairly quiet at 40s. to 45s. per cwt., and *Calcined* magnesia may be had at 1s. 2d. to 1s. 4d. per lb. *Sulphate* firmly held, with sales at 85s. per ton.

MERCURIALS.—The last official quotations have been as follows, though it is quite possible that with the altered position of quicksilver more money will be required now:—*Calomel*, 3s. 4d.; *Corrosive sublimate*, 2s. 8d.; *Mercurial ointment*, 2s.; *Red precipitate*, 3s. 7d.; white ditto, 3s. 6d.; *Blue pill*, 2s.; *Vermilion* (English), 2s. 10d. per lb.

MORPHIA.—The price remains unchanged, but *Codeia* is quoted rather lower in some quarters.

MUSK.—Arrivals are still coming in from China.

MUSTARD SEED steady at 10s. per bushel for fine new brown American. White seed 7s. to 12s., according to origin.

OIL (CASTOR).—Finest *Italian* castor is again reported $\frac{1}{2}$ d. per lb. dearer, 5d. per lb. being now quoted for it. In Liverpool also the market for *East Indian* castor oil continues to advance, and for good Calcutta seconds 3 $\frac{1}{2}$ d. per lb. is now required for forward delivery.

OIL (OLIVE) quiet at 33s. to 34s. for *Spanish*; 33s. 6d. for *Messina*; and 31s. to 31s. 6d. for *Mogadore*. In the North of Italy the markets are very dull, and the demand is confined to a certain variety of oil for the French and Russian markets. In Southern and Central Italy the crops promise very well indeed.

OIL (PETROLEUM).—Firm; *American* spot, 5 $\frac{7}{16}$ d. to 6d.; September-December, 6 $\frac{1}{8}$ d. to 6 $\frac{3}{8}$ d. Russian spot, 5 $\frac{3}{16}$ d. to 5 $\frac{1}{4}$ d.; June, 5 $\frac{1}{4}$ d.; September-December, 5 $\frac{5}{8}$ d. At auction last Friday 2,200 barrels American refined were offered, and of these 350 barrels 73° test sold at 5 $\frac{1}{4}$ d. A parcel of 200 barrels water-white 112° test were bought in at 8 $\frac{1}{2}$ d.

OILS (ALMOND).—English-expressed sweet oil of almonds is held at 1s. 4d. to 1s. 6d. per lb., according to quality.

OILS (ESSENTIAL).—*Almond* oil, 25s. per lb. for English distilled, while peach kernel oil may be had at 16s. 6d. per lb. *Star-anise* held at 6s. per lb. on the spot, but we do not hear of any business. From China cablegrams come higher, 5s. 11 $\frac{3}{4}$ d. "c.i.f.," steamer shipment, being quoted from China to-day. *Cassia* offers at 3s. 6d. per lb., but we do not hear of any transactions. *Dillseed* oil, English, remains very scarce, and more money is asked. *English Oil of cloves* is still quoted up to 5s. per lb. for best. *Peppermint* oil quiet for American, at 13s. for HGH. *Sandalwood* oil is quoted higher, at 17s. per lb. for English distilled yellow oil. *Sassafras* is lower, and quoted at about 2s. per lb. As regards French essential oils we hear that the distilling of *Orange* and *Rose* flowers is now proceeding. The crop of both is turning out better than was expected, and is of fine quality. The distillation of *Rosemary* and *Thyme* is also proceeding, and the result will be known, it is thought, in a few days.

OILS (VARIOUS).—*Cocoanut* remains rather dull of sale, and business is restricted. *Coehin* quoted 26l. 10s. to 28l.; Ceylon, 24l. 10s. to 24l. 15s.; Mauritius, 25l. 10s. to 25l. 15s. *Cottonseed*, crude, on the spot here, 24l.; refined, in casks, 26l. to 27l. 10s.; Liverpool refined firm at 26s. to 26s. 6d. per cwt. *Linseed* strongly inquired for and dearer; spot, 20l. 15s. to 21l., according to position and packing; Hull, naked spot, 20l. 5s. *Palm*, fine Lagos, 24l. to 25l. *Rape* quiet; English refined, 27l. 10s. to 28l.; brown offers freely at 25l. 10s. to 26l.; refined getting scarce in Liverpool at 30s. 6d. per cwt. *Turpentine* prices have further advanced,

and American spirits on the spot are now 36s. 6d. to 36s. 9d.; June, 34s.; September-December, 28s. 9d. to 29s. French is momentarily cheaper than American.

OPIMUM.—There is nothing new this week in the position of this article, except the report that 20 cases *Persian* have been sold at 13s. per lb.

ORRIS ROOT.—In Italy prices have further risen, from 45s. to 52s. 6d. per cwt. being now required for fair to fine picked *Florentine*, while *Verona* sells at 21s. 6d. to 28s., according to quality. The advance appears owing almost entirely to the action of a few speculators, who control the article, and the consumptive demand is very slack. The Florentine crop is reported to be a failure, though of the inferior Veronese root there is still plenty to be had.

POTASH SALTS.—Holders of *Ashes* continue to sell for lower rates. First Montreal pots have been done at 21s. 9d. to 22s., and pearlashes at 32s. to 33s. per cwt. *Bichromate* quiet at 4 $\frac{1}{2}$ d. per lb. *Chlorate* remains quiet at 4 $\frac{3}{4}$ d. to 4 $\frac{1}{2}$ d. on the spot. *Prussiate* firm for yellow at 6 $\frac{3}{4}$ d. to 7d. per lb., according to brand. Red unchanged at 1s. 7d. per lb.

QUASSIA.—The demand still continues, and from 22l. to 25l. per ton is quoted for chips.

QUICKSILVER.—During the present week this article has gradually gained strength, and yesterday, when the importers were still quoting 8l. 10s., there were buyers of second-hand stuff at 8l. 4s. 6d. per bottle. To-day there has been a considerable advance, and the importers have ceased selling at 8l. 10s. They now refuse to name a price, but will, it is thought, require 8l. 15s. or 9l. to-morrow, while on the second hand 8l. 12s. 6d. has been paid. The first small sample vial of quicksilver produced in South Africa is said to have been recently shown at Barberton, in the Transvaal. The vial only contains an ounce of the metal, but the "expert" who "procured" it from a reef situated on the Big Buffalo river in the Lebombo district, says that the mine is a wonderfully rich one—in fact, it appears that the mercury is found there in a practically pure state.

QUININE is still drooping. During the week a rather considerable business has been reported—about 60,000 or 70,000 oz.—at 11 $\frac{1}{2}$ d. to 11 $\frac{3}{4}$ d. for German bulk on the spot in second hands, and at 1s. per oz. for forward delivery, July-December, by the Brunswick agents direct. To-day one of the agents is said to have sold 10,000 oz. at 11 $\frac{1}{2}$ d. per oz. on the spot. There are no reliable quotations to be had from the makers.

RHUBARB.—There have been several small arrivals from Shanghai this week, aggregating 136 cases.

SENEGA ROOT quiet at 2s. 1d. to 2s. 2d. per lb.

SHELLAC.—At the auctions on Tuesday a large quantity was offered, part of it having been shipped here from New York. There was a good demand with steady competition, and of the 2,387 cases offered, over 900 found buyers at full prices to an irregular advance of 1s. The following prices were paid:—*Second orange*, fair to good bright red, 66s. to 68s.; dull to fair, 61s. to 65s.; livery and dark, 59s. to 61s. *Garnet AC*, good free, partly unworked, 50s. to 52s.; cakey, 48s. 6d. to 49s. 6d.; fine ruby OCC, 51s. to 52s. *Button lac*, fair unworked to fine worked, first, 87s. to 94s.; seconds, 80s.; dark mixed thirds, 63s. to 66s. per cwt. At the call following the sales there was very little demand, and since then very little business has been done, 66s. being the last price reported paid for TN *Second orange*, June delivery. At to-day's call (which was extremely thinly attended) the quotations were:—

			June	July	Aug.	Sept.
Second Orange TN, sellers	..	..	67/	68/6	69/	70/
" buyers	..	..	65/	67/	68/	68 $\frac{1}{2}$
Garnet AC, sellers	..	..	53/	54/	55/	—
" buyers	..	..	51/	51/	51/	—

The shipments of shellac from Calcutta to the United Kingdom during May have been 2,000 cwt. (of which 1,600 cwt. in the second half of the month), against 6,300 cwt. in May, 1888.

SODA SALTS.—*Ash*, 1½*d.* landed; *Tyne*, 1*d.*, less 2½ per cent. *Bichromate* unaltered, at 5*l.* 2*s.* 6*d.* ex warehouse. *Caustic* dull and weaker; cream at 6*l.* 10*s.*, and white 60 per cent., landed, 6*l.* 12*s.* 6*d.* to 6*l.* 15*s.*; 70 per cent., 7*l.* 7*s.* 6*d.* *Crystals* are reported firmer, at 49*s.* 6*d.* ex ship here, and 42*s.* 6*d.* on the *Tyne*. *Nitrate* quiet and dull of sale, at 8*s.* 3*d.* to 9*s.*, according to quality.

SPICES have been very dull this week, and on Wednesday, the usual public-sale day, no auctions were held owing to the Epsom races. Privately we hear that *Zanzibar Chillies* are selling at 31*s.* to 32*s.* per cwt. *Black Pepper*, Singapore spot, sold at 6½*d.*, and afterwards down to 6¼*d.* *White Pepper* has been done at 10¼*d.* for July-August. *Pimento* is said to be tending higher, 2½*d.* per lb. having been refused, it is said, for a fair-sized parcel, though subsequently it was accepted.

TEA.—The *China* market is quiet, and a holiday tone is noticeable. Low-priced Congou remains firm, and we are not likely to see them lower at present. The future of the market is difficult to forecast; if the Produce Clearing-house succeeds in keeping up the price of fair common Congou to from 5*d.* to 5½*d.* per lb. (and future engagements of sellers render it probable for the next month or two), we may before long see low-priced Congou largely ousted from the home trade (as higher-priced Congous already have been) by the 5*d.* and 5½*d.* Assam and Ceylon Souchongs, which have been selling lately, and which have been taken so freely by the retailers. These teas are most valuable for 1*s.* 4*d.* canister, and, used with good 8*d.* or 9*d.* Pekoe Souchongs and Pekoes, enable a retailer to sell at 1*s.* 4*d.* per lb. a really good drinkable tea at a remunerative profit to himself. The market for these lower grade Assams and Ceylons will fluctuate, and we may see them at 6*d.* to 6½*d.* again before long, but with the quantity of tea of these grades coming forward it is probable that we shall have a good many more 5*d.* leaf Ceylons and Assams before the season is over.

TURMERIC flat and quiet. Fair *Bengal* root is worth about 9*s.* 6*d.* per cwt. At Tuesday's auctions prices declined, and of a large quantity of *Bengal*, which were then offered, 712 bags sold at 9*s.* to 9*s.* 3*d.* per cwt. *Madras* root was all bought in.

VANILLA.—Reports from Mauritius, dated May 11, say that the crop is almost finished, and there does not appear to be any stock left worth mentioning. The plantations are said to have suffered very much from the heavy rains in the early part of the year, and the prospects for the coming crop are considered bad.

WAX (BEES').—At last week's auctions *Jamaica*, fine orange brought 6*l.*; good red, 5*l.* 15*s.* to 6*l.*; brown, 5*l.* 10*s.* to 5*l.* 12*s.* 6*d.* *Australian*, grey mixed to fine orange, 5*l.* 12*s.* 6*d.* to 5*s.* 17*s.* 6*d.*; common greasy *East Indian*, 80*s.* down to 27*s.* 6*d.* per cwt. Privately fine *Mogadore* is said to have sold at 95*s.* to 100*s.* per cwt.

THE DUTCH MARKET.

AMSTERDAM, June 5.

CINCHONA.—The next bark sales here will be held on June 13, and consist of 2,471 bales and 70 cases, about 221 tons—viz.: *Java Bark*, from the Government plantations, 397 bales and 48 cases, about 35·3 tons; from private plantations, 2,034 bales and 22 cases, about 182·2 tons. *British India Bark*—40 bales, about 3·5 tons. The total supply is composed as follows:—*Druggists' Bark*: *Succirubra* quills, 47 cases; broken quills and chips, 200 bales; root, 31 bales; *C. Schuhkraft* quills, 8 cases; broken quills and chips, 10 bales; root, 11 bales. *Manufacturers' Bark* (about 196·8 tons): *Officinalis* quills; broken quills and chips, 78 bales; root, 12 bales; *Lodgeriana* quills; broken quills and chips, 1,537 bales; root, 442 bales; *Hybrid* quills, 15 cases; broken quills and chips, 101 bales; root, 49 bales. *Manufacturers' barks* contain about 8·25 tons of sulphate of quinine, or 4·18 per cent. on the average. About 9·56 tons contain 1·2 per cent. sulphate of quinine; 36·19, 2·3; 68·58, 3·4; 24·46, 4·5; 30·60, 5·6; 17·80, 6·7; 8·02, 7·8; 1·63, 9·10.

LONDON DRUG STATISTICS.

THE following figures refer to the stocks of the principal drugs in the port of London on May 31, 1889, and to the imports and deliveries from January 1 to May 31, as compared with the preceding year:—

Article	Stocks		Imported		Delivered	
	1889	1888	1889	1888	1889	1888
Aloes ..cs & pkgs	7,357	4,892	1,823	1,525	1,461	1,851
" ..gourds	1,796	2,197	195	252	447	2,734
Anise, Star ..chts	91	249	40	103	85	32
Arrowroot ..cks	12,394	13,641	7,192	6,919	5,664	6,241
" ..bxs & tins	6,393	7,203	715	1,778	2,182	4,621
Balsams ..cks, &c.	2,560	414	77	139	161	334
Bark (Cinchona), S.American cases	483		9		32	
bls. &c.	35,305		4,154		3,122	
E.I., Ceylon, and Java	771	62,281	859	30,297	684	27,342
bls. &c.	29,141		29,273		22,044	
Borax	587	1,003	6	517	37	1
Calumba	1,577	2,555	153	597	420	840
Camphor	591	3,086	1,316	4,832	1,687	3,724
Cardamoms ..chts	1,510	983	1,915	1,512	953	1,247
Cocc. Ind. bgs, &c.	305	708	—	443	44	21
Cream of Tartar cks	11	13	8	5	10	5
Cubebs	22	82	122	122	221	153
Dragon's Blood cchts	195	90	160	79	45	86
Galls, China, &c. cs	1,856	5,422	942	7,713	1,211	3,991
Turkey	6,425	4,633	6,605	4,832	2,897	3,206
Gums—						
Ammoniac pkgs	120	199	6	6	11	43
Animi & Copal pkgs	4,852	5,054	3,036	4,473	3,036	3,843
Arabic	24,935	13,887	16,629	11,035	11,229	8,418
Asafoetida ..	644	509	654	257	359	193
Benjamin ..	2,130	1,630	1,365	1,406	1,122	1,307
Damar	2,743	2,722	2,880	1,716	2,663	2,411
Galbanum ..	—	—	—	—	—	—
Gamboge ..	115	116	127	101	105	94
Guaiacum ..	30	31	52	3	38	43
Kino	115	120	37	66	9	22
Kowrie	1,493	814	1,359	1,303	1,270	991
Mastic	41	121	24	44	14	23
Myrrh	54	472	160	228	191	304
Olibanum ..	4,001	6,141	4,916	5,379	3,613	3,222
Sandarac ..	903	1,486	585	1,046	439	603
Tragacanth	9,239	6,632	6,589	7,115	3,086	2,357
Indiarubber, E.I. tons	223	337	161	252	266	169
Madagascar ..	60	47	16	61	53	33
S. American ..	76	140	115	138	90	118
African, &c. ..	554	631	221	441	243	405
Ipecac.	402	160	679	215	505	218
Jalap	73	143	—	66	14	69
Lac Dye	5,790	6,854	—	—	90	312
Myrabolans ..	8,354	8,807	4,465	3,858	3,766	5,593
Nux Vomica pkgs	375	543	332	619	1,075	625
Oils—						
Anise	101	33	174	83	83	94
Cassia	86	185	151	128	85	105
Castor	611	727	250	27	214	332
"	2,635	9,449	958	6,348	5,311	4,414
Cocoa-nut	2,228	2,668	2,484	2,511	1,538	1,653
Olive	765	1,083	1,962	1,384	1,551	1,800
Palm	29	247	47	108	78	63
Opium	1,425	1,624	347	281	539	762
Rattans	74,193	128,508	83,972	172,070	89,688	182,050
Rhubarb	865	898	437	462	595	693
Safflower	574	214	32	42	43	187
Sarsaparilla	373	624	629	677	642	474
Senna	1,242	1,448	663	1,69	1,320	1,927
Shellac, Orange cchts, &c.	47,927	54,643	11,428	24,571	9,985	11,920
Garnet ..	16,930	20,045	4,991	7,837	3,220	2,573
Button ..	7,327	11,028	3,121	3,394	3,601	3,484
Total	72,236	85,716	19,543	35,802	16,805	18,377
Sticklac	3,982	4,307	932	613	777	697
Gambier	583	1,117	3,721	4,241	4,259	5,016
Cutch	3,492	2,908	2,352	3,306	2,133	1,342
Turmeric	2,837	3,442	119	1,355	503	546
Vermillion, cchts, &c.	22	35	90	33	80	61
Wax, bees'	331	655	214	68	359	226
"	1,253	1,667	1,627	1,003	1,422	1,077
"	125	42	178	21	68	—
Wax, Japan	997	1,719	208	1,311	663	504

CHIONANTHUS VIRGINICUS is steadily growing in favour as a remedy for jaundice. The fluid extract is administered in doses of ʒss. to ʒj. as soon as the yellow spots appear upon the skin.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

Mr. Martin's Motives.

SIR,—I confess to some amusement on reading the very outspoken and lengthy remarks of Mr. Martin in your journal and elsewhere. Methinks, however, he doth protest too much. When Mr. Martin says that those who voted for him are "under an obligation" to him for spending "time, energy, and money" in their service, he means one of two things, either that he is giving his "time, energy, and money" "free, gratis, and for nothing," or that he has some compensation in return. If he means the latter, his entire argument loses point, and he is simply playing upon words, with the object of throwing dust in the eyes of the members of the Society; if he means, or thinks he means, the former, then I make bold to say that he has made a mistake. I do not know much about Mr. Martin, but I know a little about human nature as it shows itself in me and in my acquaintances, and I have yet to meet, outside the walls of a lunatic asylum, the man who will spend "time, energy, and money" in pursuit of an object which yields no compensation whatever.

Had Mr. Martin no motive for consenting to take a seat in the Council? Surely the very slightest thought is sufficient to convince us that a man must have a powerful motive before he will undertake a work which calls upon him to spend "time, energy, and money." The motive may not be the hope of material advantage, such as extension of business and increased financial returns, it may simply be a desire to stand high in the Society, the gratification of ambition, the social pleasures of the monthly trip to London, or it may even be a sincere desire to advance the cause of education and elevate the profession of pharmacy; but whatever it was, some motive there must have been, and if Mr. Martin thinks the obligation is all on one side he deceives himself.

It is just possible that there may be down in the bottom of Mr. Martin's intellectual organism a feeling that he would probably not care to own, even to himself, acting as a motive power leading him to a seat at the Council board.

Mr. Martin in one of his letters has the supreme good taste to insult the "craft"—that is hardly the word for the contemptible cattle referred to, but it may pass—by telling them that "the mass of chemists and druggists have refused or been incapable of understanding what was and is the 'good' they should seek." Well, they have long thought, for example, that it would be some "good" to them if they could have a fair share of the work for which they are specially trained, viz., dispensing the prescriptions of medical men, and for years they have more or less articulately expressed this desire. But somehow or other it never gets any further; like Dr. Symes's famous resolution, it never is allowed to be even debated in Council, whether an effort in this direction should be made or not; perhaps it is never even mentioned in committee. Perhaps it is hopeless; but if it is, what can the Society show for its forty-five years' work, and what is there to show for the twenty years of compulsory examination? Surely here is a most lamentable confession of failure, if after all these years of education, and training and cramming and examination, a man is only able to live by engaging in what is really an illegal trade, viz., counter-prescribing! But what has this to do with the point? Mr. Martin knows very well that there are councillors sitting round the table

every month of whose bread-and-butter a very large proportion comes from the trade with doctors who dispense their own medicines.

With these councillors on the one side, and firms providing for the stores on the other, penning in, and eating up the pharmacist, where is there any room for the exercise of that "good" on which Mr. Martin has set his heart? Mr. Martin may not be conscious of any but disinterested motives for sitting at the Council board, and I do not suppose for a moment that he ever dreamed of using his position there for any unworthy object; but the effect of his and his companions' being there is by sheer inertia, and without any exercise of will on their part, to prevent any steps being taken which can by any means lead to the accomplishment of the form of "good" I have instanced. If Mr. Martin gets no compensation for his "time, energy, and money," let him clear out, and other men, as good as he, will be willing and glad to have a chance for the vacant seat.

One word to yourself. I regret much that you have not spoken out loud and clear on the question of the presidency. You might not have carried the day against Mr. Carteighe, but you would at least have preserved your own consistency. If you think that you will be able to effect any beneficial results by taunting the president after he begins again his course of self-will, you will be woefully mistaken. Your silence at this crisis has been received with pain and regret, and many of your subscribers will place much less store by your utterances in future. Things cannot be so near the verge of ruin, as you have long been pleased to depict them, if you cannot lift up a little finger to save them now.

I know not what the result of the vote will be on Wednesday, but this I know, that there are other men on the Council who deserve better of the Society a thousand times than the proprietor of Dinneford's fluid magnesia, which you may buy in every little store throughout the country; men who, like Mr. Atkins, of Salisbury, have arms free and unfettered, and who can understand the position and realise the wants of the great bulk of the Society and the craft. Mr. Atkins may not be perfect, but to the distant onlooker he approaches as nearly as any the ideal pharmacist, the pharmaceutical Bayard, *sans peur et sans reproche*, and as such he ought to be honoured.

Your truly,

A READER. (63/39.)

P.S.—An astounding rumour reaches me to the effect that Mr. Carteighe has been re-elected by a larger majority than ever. It seems incredible; but if it is true, will you, if you can, explain the extraordinary circumstance that the opinion of the Council has been growing in inverse ratio to the feeling in the Society? Year by year the vote in Mr. Carteighe's election as President has increased, whereas the vote in his election as councillor has enormously decreased. Why is this? Do you account for it by the fact that Mr. Carteighe throws a spell around all who come under his magical influence? Is one of the ten talents with which, according to Mr. Martin, he is endowed a mesmeric power, against which resistance is impossible? Is it that no other councillor will consent to take office while there remains in the Council a powerful leader of a mechanical following, who might thwart every scheme brought forward?—a perfectly possible explanation. Is it that the Council are determined to let the President find his level and fry in his own fat? Is the reason to be found in the philosophy of the jumping cat? Is it because there is likely to be a general breakdown in the machinery all round, and that Mr. Carteighe is the only available engineer? Or, if none of these, what in the name of common sense is it? Let us have the inner history of this extraordinary affair, if you can, and you will earn the thanks of a good few, as well as of "A Reader."

The Irish Deadlock.

SIR,—As a member of the Irish Pharmaceutical Society, I very much regret the resignation of Messrs. Brunner and Draper, although I am opposed to the Bill tooth and nail. The idea of persons other than pharmaceutical chemists compounding poisons in this country is ludicrous. It is bad enough to have so-called druggists illegally competing in the compounding and sale of poisons with men who have spent time and money in obtaining the certificate of the Society,

but to legalise their present actions would be preposterous. A few of the licentiates are independent of any Act; I refer to those having houses in the three large towns where a good dispensing business is done. But what about the unfortunates in the country towns who may not get a dozen prescriptions in the course of a week? In your remarks on the subject you say that we "are not threatened with the loss of any privilege which rightly belongs to us," and that our "objection is only a sentimental one." Does the compounding and sale of poisons not "rightly belong to us," and in losing it would we not part with a privilege? The objection to the Bill is a monetary one, and not sentimental by any means. I like your idea of getting the opinion of the members immensely, but presume the licentiates would have no right to express an opinion unless the Council saw fit to consult them.

When I was "bound," and also when presenting myself for examination, it was on the distinct understanding that by virtue of the special education required, pharmaceutical chemists were to have the sole legal right to compound and sell poisons (with the exception of a few, who had certain rights in consequence of their having been in business prior to 1875). I admit their rights, but at the same time contend for ours. If, instead of proposing to register those who went into business since 1875 the Council would make an effort to get that Act amended, so that it could be utilised for the prosecution of those who engage in the illegal sale of poison, and announced this determination to the licentiates, the latter would join almost to a man and be willing to subscribe, not one guinea, but five, for such an object.

Yours very truly,
"JAM."

[The Bill did not propose to give the druggists any right to compound prescriptions. It remains, therefore, simply true that pharmaceutical licentiates "are not threatened with the loss of any privilege which rightly belongs to them."—ED. C. & D.]

SIR,—Now that we have before us the authorised report of the last meeting of our Council (P.S.I.), I think it behoves the members of the Society not to allow the President to resign that office, under the circumstances which have occurred, without in some way acknowledging his labours and sacrifices on behalf of the Society during the term he has been in office.

Although I am far from saying he was not justified in acting as he has done, I think that he might have considered that he was placed in his position by the Society, and that he had the majority of the Council with him, and that he ought not to have surrendered except to a general meeting of the Society called to consider the matter. But as his resignation has before this become a matter of fact to be dealt with at the next Council meeting, and irrevocable unless by it he is re-elected, I am certain many—even of those who may not agree with all the details of the compromise which he chiefly on our behalf negotiated with the committee of the Chemists and Druggists' Association of Ireland—regret that this step should be forced upon him; and I venture to submit the question—How shall we express our appreciation of the labour and sacrifices he has made on behalf of the Society?

I am, sir, yours truly,
Dublin, June 3. R. J. DOWNES, M.P.S.I.

Sal Volatile.

The representative of a London wholesale drug house who travels over seventeen counties, writing about the comparative use of P.L. and P.P. sal volatile, says:—

"Until within the last twelve months I sold a larger proportion of the P.L. than B.P.—as near as I can say about three to one—but the last twelve months it has taken quite a turn, and, except in a few cases (and these are where a large retail business is done in it), the B.P. is the preparation that is required; in fact, I believe the old form is now never used in dispensing, but parties who have been in the habit of taking the old form object to the B.P. for the reason, they say, that it burns the throat. This, I presume, is owing to the larger amount of liq. ammon. fort. in the B.P. than in the old form."

He asks our opinion as to how the old form should be labelled—we understand him to mean by the wholesale house. We should say, without doubt, "Sp. ammon. co. P.L. 1851."

All Night Pharmacies.

SIR,—Having noticed an article in your issue of April 27, headed "A Day and Night Pharmacy," we thought it might be interesting your readers to know that the idea has been successfully carried out in our city. Since January 1 our establishment has been open day and night, and although the population of Halifax is only about 50,000, enough new business has been worked up to warrant us in continuing the "all night system." The night dispenser comes to work at 9 P.M., and is relieved at 7 A.M. by the day clerk. He uses his spare time in making up the different pharmaceutical preparations required and in putting up our proprietary articles.

Yours very truly,
Halifax, N.S., May 20. HATTIE & MYLIUS.

Aconites and Aconitine.

SIR,—In connection with the abstract of our paper we wish to make a correction. We did not say that "Mr. Groves suspected the activity of the nitrate recovered aconitine," but that an examination of his crystals of aconitine, aconitine nitrate, and aconitine recovered from the nitrate, showing as marked contrasts as our own specimens, inclined us to feel still more confirmed in our belief as to the injurious action of nitric acid upon aconitine. This belief we hope to test shortly by means of physiological experiments, the most satisfactory of all tests, as indicated by Mr. Martindale in his criticism of our paper.

Yours very truly,
E. RICHARDS AND F. ASHLEY ROGERS.

The Late Sir Thomas Dakin.

SIR,—As your obituary notice of my uncle, Sir Thomas Dakin, in THE CHEMIST AND DRUGGIST of May 1 is liable to mislead the correspondents of my firm in China and elsewhere, I must ask the favour of your insertion of the following correction:—

"The company entitled 'Dakin Brothers, of China (Limited),' formed especially to carry on business in China, is an entirely separate and distinct business from that of my firm, Dakin Brothers. This latter business is conducted at this address as heretofore by me, the sole surviving partner of the firm. I have also undertaken the duties of managing director to the aforesaid company, which has its offices in our premises."

I may just add that Mr. Joseph, not James, Dakin was a brother, not son, of Sir Thomas Dakin, hence the firm, Dakin Brothers; and that I myself am a son of Mr. Joseph Dakin, and consequently a nephew, not grandson, of Sir Thomas.

By inserting these corrections of your otherwise excellent notice, our China friends will be assured that my firm is still in existence, and will be always pleased to hear from them.

Thanking you in anticipation,

I am, dear sir, yours faithfully,
Creechurch Lane, E.C., June 3. J. HARRISON DAKIN.

The Patent Medicine-stamp Tax.

SIR,—Your correspondent "Silas Mainville" would have you infer, from a previous letter of mine, that I am an evil-disposed person who speaks disparagingly of the great and good; but really such is not my disposition. I do not blame our present legislators much—theirs is not the fault of commission in passing the miserable Medicine-stamp Act, but of omission to abolish it. They seem pretty busy about Irish affairs, but when these are settled, as they promise to be soon, maybe British affairs will get some attention. I respectfully submit that my observations *re* the stupidity or treachery of those dead-and-gone legislators (may the devil be easy with them!) are justified by facts.

They were landlords, not landowners, entrusted with the collection of the rentals of all lands which were acknowledged in English law to this day as public property. Three-fourths of the rents were expended in keeping up the local

militia, including their personal sustenance as public servants. The other fourth they sent to the King's treasury, for the national or central Government. Perhaps it did not occur to them that if the money for national and local expenses were raised in some other way that they could keep on collecting the rents which, no longer sent to the public, might be retained by themselves. However, they made the experiment by starting stamp taxes and other taxes almost innumerable, the result of which, perhaps accidental, has been that they have become landowners instead of landlords, for instead of sending the rentals to the local and national treasuries they quietly pocket them as rentals for their land.

Perhaps they did not intend to legislate themselves rich by inventing numberless taxes for other people to pay, but if it was all a mistake and oversight on their part, then the inheritors of their principles, whose families have for more than a century enjoyed all the results of labour without working for them, will realise that they have had something for nothing long enough, and perhaps be willing to give the public an innings. This they can do in a graceful way by abolishing those oppressive taxes upon medicines and all products of industry, leaving but the one old reliable tax—land values created by and belonging to the people. We wait to see which shall win, mercenaries or medicines, conscience or confiscation.

MERCURIUS.

Glycerine.

SIR,—The official tests do not include one for the special detection of sugars in the above. It is often stated that glucose may sometimes be used as an adulteration, but quite recently cane sugar, to the extent of 20 per cent., has been found in several samples, occurring in 56-lb. tins, which have been purchased by local pharmacists. Suspicion was aroused by the fact that when transferred from the tins to bottles much of the material was left behind in solid form, and on cutting away the top of the tin vessel the sugar was seen to be deposited in very fine and large crystals on the sides. The original maker of this brand could not be traced, and as a result, the buyer had either to bear the loss or sell an adulterated article, with the usual risks.

Birmingham.

F. H. ALCOCK.

Doubtful Patents.

Dr. Mierzinski (Brünn ober Gersnitz) writes us regarding two shellac items which we printed in our issue of April 27. Both refer to freeing the shellac from wax and fat, and upon one method an English patent has been granted. Dr. Mierzinski wishes it to be known that neither of the methods is novel, and he questions if a patent based on the purification of shellac with benzol—which was known and practised twenty years ago—can be valid.

Messrs. Elliman's New Departure.

SIR,—We are obliged by your remarks. Please note that, to those who inquire why marked price was not made lowest retail, we reply:—That we recognise the right of the retail purchaser for cash to have an advantage over the purchaser for credit. To those who get full prices we say, "Your profits were too large, and you gain this:—the margin between lowest possible retail and marked prices being no longer so large you no longer appear so dear when asking full prices; also, the last ten years' experience has proved that our prices and terms of forty years ago no longer give the remuneration we are entitled to for creating the demand for you."

It will take some time to ascertain the practical result of our action.

Slough, June 1.

Yours truly,

ELLIMAN, SONS & CO.

SIR,—How many times have we been informed by correspondents in your valuable journal our end would be the workhouse? This week an attempt (and I hope it will succeed) is started by such an eminent firm as Messrs. Elliman to improve our latter end; let us then "come over and help" them and ourselves at the same time. No doubt most of us, and especially country chemists, are pushing our own cattle and human embrocations in place of Elliman's; let us dis-

continue this, then Messrs. Elliman's sales will at once increase, and when this becomes known other proprietors of patent medicines will follow in their steps. To facilitate the working of Messrs. Elliman's scheme we should all be on the look-out for undersellers, and immediately inform of them. Our united thanks are due to Messrs. Powell, Swindon, and to Messrs. Elliman. I trust we shall in the future push their articles.

Yours truly,

"CATTLE AND HUMAN." (16/36.)

Carbolic Acid as a Disinfectant.

Messrs. Hamilton & Co., manufacturers of carbolic acid disinfectants, Wandsworth, write us a lengthy letter in reference to an article headed "Carbolic Acid as a Disinfectant," which appeared in this journal on May 25, and in which they think we appeared to assert the worthlessness of carbolic acid for that purpose. In fact, the object of the article was to point out that the medical department of the Local Government Board had been inconsistent. They refused to allow the scheduling of carbolic acid because of its general value as a disinfectant, and yet their medical officer comments, in a recent document, on its comparative uselessness as a disinfectant and deodorant. Messrs. Hamilton & Co. point out (what is not disputed) that it is more largely used than all other disinfectants combined; but when they go on to add that it is "undoubtedly a most powerful antiseptic and deodorant, and has the great merit of cheapness," they are somewhat begging the question. They further tell us that "it is used by all the principal Governments, public health authorities, and hospitals of the world, and that the English Admiralty and War Departments use no other disinfectant. Innumerable have been the comparative tests by many eminent scientific men, who agree that, as a disinfectant, carbolic acid leaves little to be desired."

A Queer Bargain.

SIR,—Since the earliest time medicine has been a necessity, and as such has been in constant demand. In the sixteenth century W. Salmon, at his house, the Blew Bull, in Shoe Lane, London, pursuing the art and mystery of an apothecary, performed, he says, "through the assistance of Divine Help the good work complete in all its parts. This I know no good man can be angry at; and as for evil men, it is not my desire or design to please them, so I value not their flatteries or detraction." After this peroration he favours us with a catalogue of medicaments, evidently not sold at cutting prices. "Ye pauca paracelsi, 2s. 6d. prized by the ounce; potestates cranii humani, prized 10s. by the ounce; oyl of philosophers, 1s. by the ounce; whyte oyl of mercury, 10s. by the ounce; powers of turpentine, 1s. by the ounce; and last, not least, the traveler's chest, containing all medicines complete for curing diseases in man's body from head to foot, together with his 'Therapia,' or indications of cure, more large, ample, and complete than in any other author extant, in what language soever, a work of singular use to charitable and well disposed persons who have espoused the afflictions of the poor and needy." This, he says, may be paid for "in kind without trouble of calculation, being most cōsistent to nature, reason, and truth." Evidently the ills of this world were not less in the sixteenth century than they are now, and medicine was in requisition in the same ratio, but it is not often medicine is paid for in kind nowadays. I received a curious order the other day from a friend:—

"Dear Sir,—Please supply Mr. K. with one of Burroughs-Wellcome's Indian medicine chests, or any other he may select of equal value to 3*l.* or 4*l.* I have promised to take an overcoat in exchange for, for which he has no further use."

I learned subsequently that the Mr. K. was going to Java, therefore the coat was of no use to him; this fact he mentioned to my friend, who, seeing the coat was a good one and being about the size, concluded the bargain, apparently to the satisfaction of both parties. The order was so unique, for he has in the chest such a collection of tabloids to treat all diseases in a man's body from head to foot, that I think it will be of interest to readers of your esteemed Journal.

Yours truly,

STOIC. (60/43.)

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

What Was Meant?

SIR,—“Vera” asks for an expression of opinion and propounds a question which, had he not given an English address, would have been suggestive of the Green Isle.

The prescription is, of course, a homœopathic one, and the 2nd centesimal trituration of atropia is clearly indicated. In case “Vera,” as would seem probable, is not posted in the mysteries of homœopathy, and has no work of reference by him, it may be well to explain that the 2nd centesimal is made by triturating 1 grain of the 1st centesimal with 99 grains of sugar of milk, and that the 1st centesimal is obtained by diluting 1 grain of atropia with 99 grains of the same vehicle.

“Vera” should without delay make himself master of the chapter on homœopathic dispensing in “The Art of Dispensing,” and should invest in a copy of Keene & Ashwell’s “Companion to the Homœopathic Pharmacopœia.” He would then be no longer under the necessity of perpetrating hibernicisms in your valuable columns, and his chances of having to appear at coroner’s inquests would be considerably diminished.

Yours truly,

Buxton, May 27.

C. S. ASHTON.

SIR,—As the B.P. gives no dose for “atropia pur.,” I should think the prescription sent you by “Vera” is by a homœopathic physician, the English of which would be:—

Take of

Atropia (second centesimal trituration) .. 2 grains

Send six powders.

Take one when pain is severe.

Yours truly,

44 Seven Sisters’ Road, N.,
May 27.

THOS. A. O. HEALE.

SIR,—The prescription sent by “Vera” for explanation is a very simple one to anyone practically acquainted with homœopathic dispensing. It simply means that each powder is to contain 2 grains of the second centesimal trituration of atropine. Having this preparation in hand, it is dispensed in the usual way; but homœopaths usually use much smaller papers, to better accord with the size of the papers—but this is a mere matter of detail.

I am, &c.,

Southport, May 29.

E. ANDREWS.

61/17. *Trefoil* also replies to the same effect.

Pill Queries.

59/70. *Hy. G. W.*—**Aloes and Pepsin.**—For one dozen pills containing 18 grains of extract of aloes and 36 grains of pepsin, use 3 grains of powdered tragacanth, and a sufficiency of a mixture of glycerine and water (equal parts) to make a soft mass.

61/26. *R. L.*—**Fer. Redact. and Hyd. c. Cretâ.**—There should be no difficulty in making with glycerine and tragacanth a pill containing hyd. c. cretâ, gr. ij.; pulv. ipecac. co, gr. i., and fer. redact., gr. i.

57/47. *Rains.*—The prescription is for balsam floraventi and bals. vitæ Hoffmanni of each 100 grammes; chloroform, 4 grammes. Dissolve. For external use. The formula for **Balsam Floraventi** is as follows:—Ol. cassiæ, ol. caryoph., ol. juniperi, ol. mæidis, ol. terebinth, ol. origani, of each, gtt. v.; bals. Peruvian, gr. iv.; S.V.R., ʒij. Solve. The French formula is more complex. You will find the formula for Hoffmann’s balsam (mist. oleoso-balsamica) in our issue of December 1, 1888, page 765.

A Prescription,

of which the following is an exact reproduction, was presented at a subscriber’s pharmacy the other day, and it was dispensed. How many, we wonder, can tell us on post-cards what the prescription is?—

*3 in cose i d i
pills Aug 1st parts beg*

LEGAL QUERIES.

59/38. *W. W.*—The stamping of a document does not affect its legality. The only consequence of a document being unstamped is that if objection is taken to it in court the judge cannot receive it in evidence until it is stamped, or until the amount of stamp-duty and the penalty of 10% has been paid into court. Unstamped documents are put in evidence every day, because the objection is not taken before the document is put in. Unless the regulator is defined on the document the guarantee would possibly be held void for uncertainty, and the wording is altogether somewhat loose. There may be a device of the regulator printed on the document. The document must contain the names of both parties, and be signed by or on behalf of the vendors; but if the name is printed at the top it will be a sufficient signature to comply with the Statute of Frauds.

62/63. *A Subscriber.*—It would not be legal for A. B. (unqualified) to use on his label, &c., the name of his predecessors or previous employers in a way which, in the opinion of a court, is likely to mislead the public into a belief that he (A. B.) is himself a qualified chemist, as they were.

62/69. *Croydon.*—A chemist and druggist in business before 1868, who joins the Pharmaceutical Society, does not acquire the right to use the title “pharmaceutical chemist.” That title can only be acquired by passing the Major examination.

63/35. *Maltese Cross.*—Unless we know for certain the conditions on which the images were supplied we cannot tell whether you may use them as you propose. The fact that you bought them from your predecessor does not prove that he had the right to sell them.

64/12. *Camomile.*—There is no legal restriction in this country in regard to herbalists. A herbalist may sell any drugs except those named in the poisons schedule of the Pharmacy Act.

64/53. *Rhei.*—An unregistered person is not entitled to use the description “manufacturing chemist,” “wholesale chemist,” or “wholesale druggist,” though if he is such *bonâ fide* and does not use the title as an evasion, he is not very likely to be interfered with.

64/41. *W. F. G.*—According to a magisterial decision reported in this journal, August 25, 1888, you would not be justified in using the description “Doctor of Dental Surgery, Baltimore,” if you are not registered as a dentist.

MISCELLANEOUS INQUIRIES.

60/26. **Birdlime.**—See March 24, 1888, page 414.

12/16. **Preserving Seaweeds.**—See April 13, page 527.

52/73. **Black Varnish.**—March 31, 1888, page 441.

52/73. **Violin Varnish.**—See interesting discussion in the three issues beginning June 9, 1888. Also formulæ, August 18, 1888, page 229.

56/65. **Colouring Billiard Balls.**—See October 22, 1887, page 529.

59/34. **Sea Foam.**—See DIARY, page 171.

61/12. **Pomade Hongroise.**—See DIARY, page 172.

64/5. **Sulphur Hair Restorer.**—See March 16, page 371.

62/5. **Asthma Cure**—See December 8, 1888, page 803.

58/58. **Preservation of Leeches.** See Valuable Hints, September 1, 1888, page 267.

58/73. **Indagator.**—A reply was given to a similar question last week.

3/60. **Ponson.**—We cannot recommend an "investment" paper. The "tips" they give are either sucked oranges, or hopeless from the first.

Preservation of Fruit.—In answer to 54/56, *Omega* (14/2) has only tried the chloroform method with plums; he thinks it would answer well with unripe gooseberries, but soft fruits would certainly squash up into a mass, even if they did not go mouldy or ferment.

60/63. **West End.**—For **Brush-powder** you cannot use anything better than 50-per-cent. soda ash or dried washing-soda. Hudson's soap-powder is good for washing sponges.

Chameleon Fabric.—*Mr. E. Andrews* (Southport) writes: "If W. F. Harvey will refer to THE CHEMIST AND DRUGGIST for May 14, 1887, page 600, he will find a rather fuller answer to his question than was given by "Adelaide" last week.

61/27. **Citrate.**—There is no substitute for the pharmaceutical Preliminary examination which has so few subjects, and which is on the whole so easy to get through.

60/62. **F. E.**—The addition of a grain of phenolphthalein to the pound of **Kali** will make the drink red, if it is slightly alkaline, but not so if it is acid. Two grains of methyl-orange might be tried. In either case the colouring-matter should be well mixed with the sugar. Quite a little permanganate of potash gives a beautiful result, but the "Sal Regal" patent restricts its use.

60/73. **K. J.** makes a **Sauce** from the following formula, but in the warm weather it ferments. How may this be prevented? he asks:—

Garlic	14 oz.
India soy	2 gallons
Vinegar (16)	6 "
Water	6 "
Mace	4 oz.
Cloves	4 "
Capsicum	7 "

Boil fifteen minutes.

[Try the addition of 6 grains of hydronaphthol to the pint. This antiseptic is much more powerful than salicylic acid, and as the quantity used is so small the physiological action is practically *nil*. It is excellent for preserving lime-juice. Sauce which has already been fermented should be boiled with a little fresh spice and the hydronaphthol then added.]

61/3. **W. T. Cooper.**—You will find full information regarding face powders in the DIARY, page 167.

61/12. **W. Smith.**—As **Methylated Ether** is made from a mixture of methyl and ethyl alcohols (with some impurities) it does contain something else than ethylic ether. There is a small proportion of methylic ether, but not so much as to unfit the ether for general purposes.

61/40. **Enquirer** (Derby).—The sample is jalap. How is it possible for us to say what will make a colour darker if you do not tell us what that colour is composed of?

60/60. **Eucalyptus.**—(1) **Fluid Magnesia** can be bought in syphons, in which it keeps indefinitely. (2) **Tinctura Nucis Vomice** which "becomes muddy and smells bad" must be made with an extract containing fatty matter; but the spirit of wine used has also something to do with the bad odour, as many commercial spirits contain much more aldehyde than the Pharmacopœia permits. The best advice to give you, therefore, is to change your materials. (3) We have no further information than is given in the reply to "Warnem." (4) **Red Gum** is resinous, so that you cannot expect to dissolve it in an aqueous menstruum. (5) **Lotio Plumbi & Opio.**—See November 17, 1888, page 704.

65/17. **W. J. Means.**—The examinations for M.R.C.V.S. are the same at all the colleges—English and Scotch—as they are conducted by an independent body, the Examining Board of the Royal College of Veterinary Surgeons. This college has no connection whatever with any teaching body. See our last Educational number (September 22).

65/15. **R. B.**—We thank you for the formulæ which you send, and which will be useful. Have you consulted the DIARY? We give there some hints regarding wood stains. A little brunswick black, added to pale varnish, brings up the colour nicely, and is effective when applied.

17/15. **G. J. T.**—**Electric Light for Shop-windows.**—The best battery which a chemist can use is the bichromate cell. Two 1-pint cells are sufficient for an ordinary 10-candle power glow-lamp.

63/40. **A Student.**—Get Attfield's "Chemistry" and follow the course of instruction given in it. If this is too large for you get Jago's "Introduction to Practical Inorganic Chemistry" (Longmans, 1s. 6d.). You will also find it of advantage to perform the simpler of the Pharmacopœia tests.

60/3. **Warnem.**—The Half-priced Closed Letter Company give us what seems to be a reasonable explanation of the matter you complain about, but we must leave them and you to discuss it. We see no sufficient reason for raising the topic here, and in any case you ought to send such complaints under your own name.

63/68. **Leicester.**—The Unofficial Formulary contains a formula **Tinctura Ergotæ Ammoniata**, which is as follows:—

Ergot, in No. 20 powder	10 oz.
Aromatic spirit of ammonia	a sufficient quantity

Moisten the powder with a suitable quantity of the menstruum, and macerate for twelve hours; then pack in a percolator, and gradually pour aromatic spirit of ammonia upon it until 1 pint of tincture is obtained.

Dose: 10 to 60 minims.

This is rather a wasteful process, as there is about 10 oz. of the spirit lost.

Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

43/50. At what date was the "moulding," as distinguished from the "hand-blowing," of medicine vials introduced?

62/38. Best excipient for mercuric sulphocyanate, to make Pharaoh's serpents.

63/65. Formula for rheumatic ointment, as ordered by the London Hospital of Physicians and Surgeons [?], and called "Black Ointment." Smells strongly of camphor.

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4-oz. Capsuled ditto, ditto ... 5/6 " "

28-lb. tins Dalmatian Insect Powder ... 1/2 per lb.

56-lb. tins Chilian Honey ... -/3 " "

10-lb. tins Super Ess. Lemon ... 5/6 " "

7-lb. pottle P. Rhei E. I. Elect ... 3/- " "

56-lb. Bale Senna T.V. ... -/3¼ " "

4½-gallon tins finest non-freezing Norwegian
Cod Liver Oil ... 4,6 per gal.

CIRCASSIAN SWEET OIL. — 40-gallon

barrel, bright and clear as COLZA OIL—1s. 6d. per
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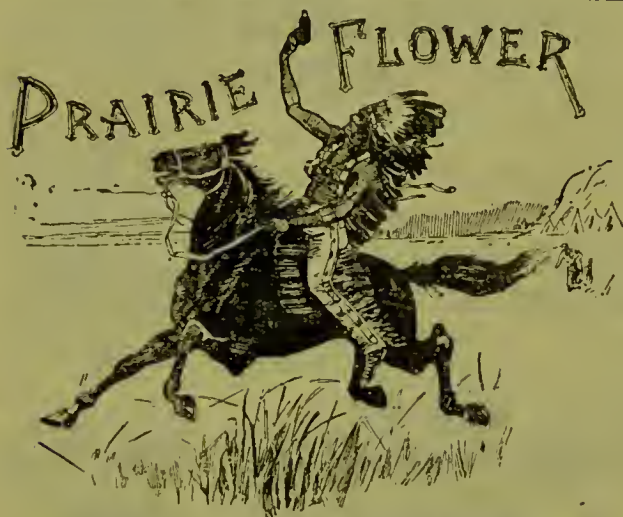
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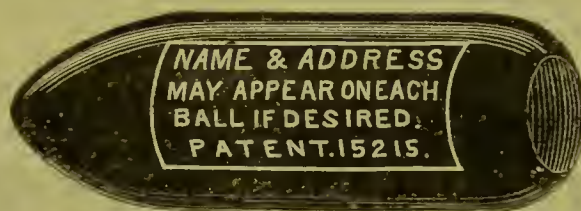
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Aloin, 1-5 gr. | Strychnina, 1-60 gr. | Ext. Belladonna, 1-8 gr.

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" " .. 1 gr.	Iodoform 1 gr.	Opium, Powdered 1 gr.	" " .. 1 gr.	" " .. 5 gr.
" " .. 1 gr.	and Iron ..	Podophyllin 1 gr.	" " .. 2 gr.	Strychnine " 1 gr.
Cannabis Indica Ext. 1 gr.	Ipecac. Powdered 1 gr.	" " .. 1 gr.	" " .. 3 gr.	Zinc. Phosphide 1 gr.
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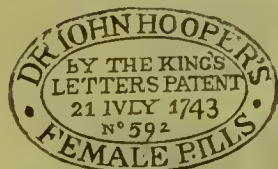
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Whereby it is mutually agreed between the said parties hereto as follows:—

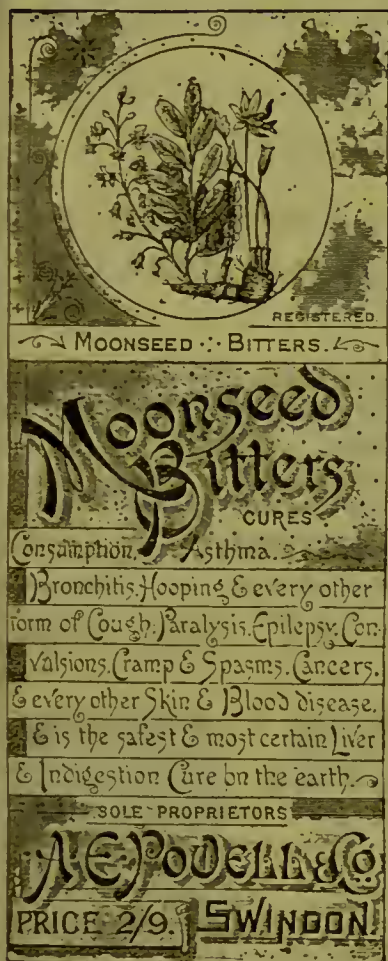
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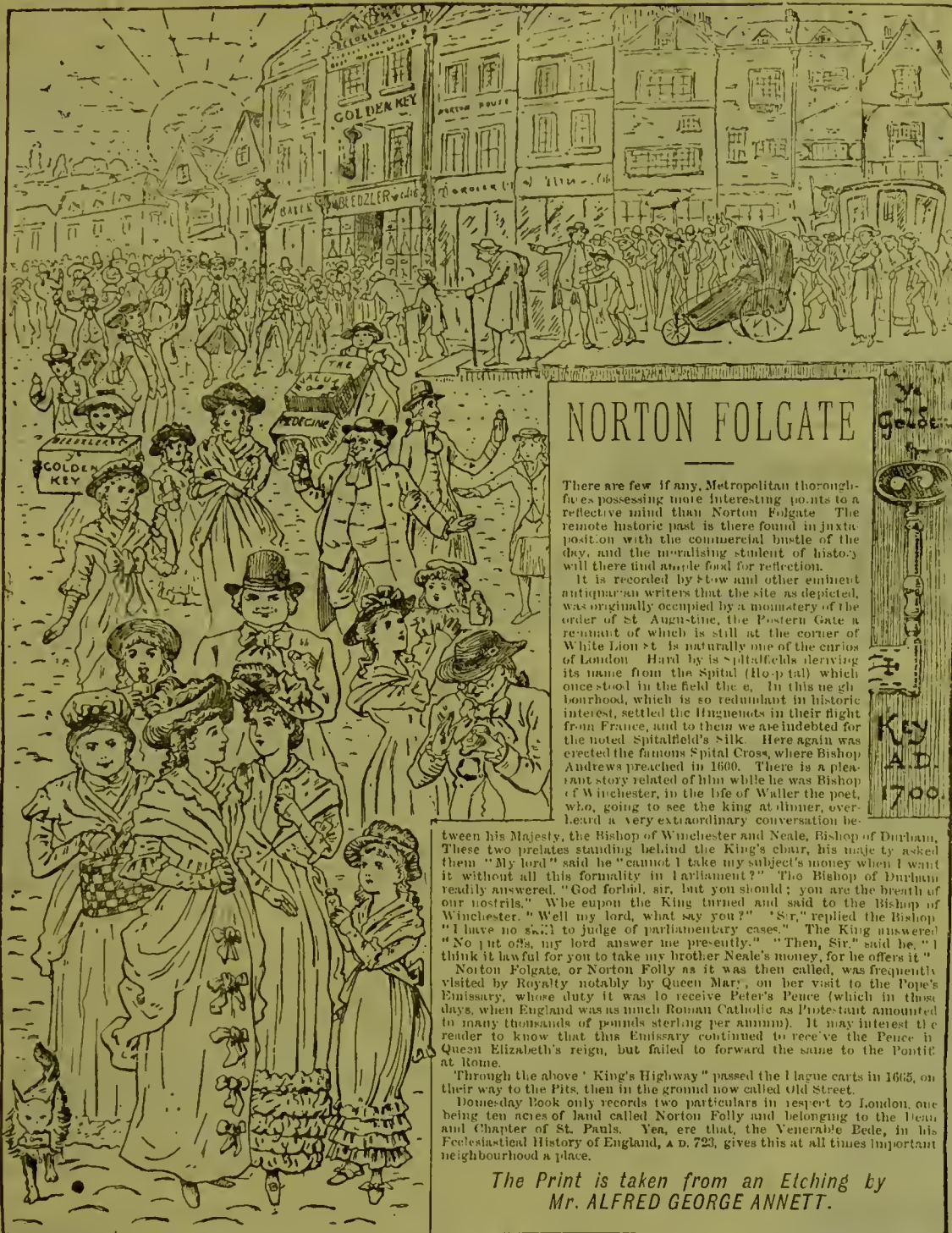
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There are few if any, Metropolitan thorough-fives possessing more interesting points to a reflective mind than Norton Folgate. The remote historic past is there found in juxtaposition with the commercial bustle of the day, and the moralising student of history will there find ample food for reflection.

It is recorded by Stow and other eminent antiquarian writers that the site as depicted, was originally occupied by a monastery of the order of St. Augustine, the Postern Gate a remnant of which is still at the corner of White Lion St. is naturally one of the curios of London. Hard by is Spitalfields deriving its name from the Spital (Ho-pital) which once stood in the field the 6. In this neighbourhood, which is so replete with historic interest, settled the Huguenots in their flight from France, and to them we are indebted for the noted Spitalfields's Silk. Here again was erected the famous Spital Cross, where Bishop Andrews preached in 1660. There is a pleasant story related of him while he was Bishop of Winchester, in the life of Walter the poet, who, going to see the king at dinner, overheard a very extraordinary conversation between his Majesty, the Bishop of Winchester and Neale, Bishop of Durham.

These two prelates standing behind the King's chair, his majesty asked them "My lord" said he "counsel I take my subject's money when I want it without all this formality in Parliament?" The Bishop of Durham readily answered, "God forbid, sir, but you should; you are the breath of our nostrils." Who upon the King turned and said to the Bishop of Winchester, "Well my lord, what say you?" "Sir," replied the Bishop, "I have no skill to judge of parliamentary cases." The King answered, "No put off, my lord, answer me presently." "Then, Sir," said he, "I think it lawful for you to take my brother Neale's money, for he offers it."

Norton Folgate, or Norton Folly as it was then called, was frequently visited by Royalty notably by Queen Mary, on her visit to the Pope's Embassy, whose duty it was to receive Peter's Pence (which in those days, when England was as much Roman Catholic as Protestant amounted to many thousands of pounds sterling per annum). It may interest the reader to know that this Embassy continued to receive the Pence in Queen Elizabeth's reign, but failed to forward the same to the Pontiff at Rome.

Through the above "King's Highway" passed the league carts in 1665, on their way to the Pits, then in the ground now called Old Street.

Domesday Book only records two particulars in respect to London, one being ten acres of land called Norton Folly and belonging to the Dean and Chapter of St. Pauls. Yea, ere that, the Venerable Bede, in his Ecclesiastical History of England, A.D. 723, gives this at all times important neighbourhood a place.

The Print is taken from an Etching by
Mr. ALFRED GEORGE ANNETT.

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AT Y^E GOLDEN KEY
FOR 200 YEARS.

MIXTURE FOR THE BLOOD,
13½d. and 2s. 9d.

SALUBRIOUS SALINE,
AN EXCELLENT
PYRETIC FROM FRUIT SALT.
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POTASH TABLETS,
6d. and 1s.

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DISINFECTING FLUID,
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13½d. and 2s. 9d.

ESSENCE FOR DEAFNESS,
13½d. and 2s. 9d.

ETC. ETC. ETC.

AN ASSORTED GROSS, £4 10 0.



JOHN BEEDZLER & CO.

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(Opposite Worship Street, and near the Bishopsgate Low Level Station.)



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THE OTTO OF ROSE which this house distils and exports is known above all by the absolute purity of its quality and the unexcelled sweetness and strength of its odour. It is guaranteed to be the finest essence produced in the famous Rose Valley of Bulgaria.

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This much-admired Perfume (first introduced by the late Joseph Okell) may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

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IN ALL THE ART SHADES.

For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

WHITE LEAD, ZINC WHITE,

PAINTS & COLOURS OF ALL KINDS.

MIXED PAINTS READY FOR USE,
In Tins, 1, 2, 4, 7, and 14 lbs. each.

HIGH-CLASS VARNISHES

Of all kinds, for Coachbuilders, Decorators, &c.
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"CYMRY AM BYTH."

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REGISTERED.

ASK FOR ELLIS'S.

CAUTION.—Corks branded "R. ELLIS & SON, RUTHIN." Every Label is Registered, and bears Name and Trade Mark (Goat on Shield).

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ELLIS'S RUTHIN WATERS.

ORIENTAL AROMATIC SALTS, FOR BATH AND TOILET PURPOSES.



The **ORIENTAL AROMATIC SALTS**, when dissolved, render the water very soft, and impart a most agreeable and refreshing perfume that can be diffused with advantage in a room where the air is close and depressing.

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The **ORIENTAL AROMATIC SALTS** are unrivalled for beautifying and preserving the Skin, rendering it soft and velvet-like; and for keeping the complexion perfectly bright and clear.

They are indispensable in the Bath as well as in the Bedroom, and should be used by everybody. In most cases of Skin Diseases these Salts will be found invaluable.

Sold in Bottles at 1/6. Wholesale of the Patentees and Manufacturers—

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BRECKNELL'S SPECIALTIES.

BRECKNELL'S SKIN SOAP.—Prize Medal.

Recommended by Eminent Medical Men, and is the best for producing a clear and healthy skin.

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Highest Testimonials as to its Superiority. The best article in use for the purpose.

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Strongly approved and recommended. Gives Black Harness a good appearance, and preserves the Leather.

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An excellent and agreeable article for cleaning and improving the appearance of Brown Leather Boots. Made specially for the purpose.

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(TO HER MAJESTY, &c.)

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IMMENSE SALE.

SOLD EVERYWHERE.

WOODS' ARECA NUT TOOTH PASTE,

As used and recommended by Madame
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PRICE, 6d. and 1s. per Pot.

CAUTION.—SEE "WOODS, PLYMOUTH,"
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S. MAW, SON & THOMPSON'S
WHITE ROSE TOOTH PASTE.

WARRANTED TO KEEP IN ANY CLIMATE.

In Square Earthenware Boxes, Gilt Burnt-in Labels, 12s. per dozen.

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In Round Earthenware Boxes, Burnt-in Labels, 3s. 6d. and 6s. 6d. per dozen.

S. MAW, SON & THOMPSON, LONDON.

COOK'S ANTISEPTIC SOAP

(THOMSON'S PATENT),

Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with.
(See "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF

ECZEMA, RINGWORM, SCABIES, FAVUS AND OTHER SKIN DISEASES.

See "The Lancet," 12 May, 1888, page 936.

Price in 3-Tablet Boxes, per doz. **12/-**; Selling Price, **1/6**; in $\frac{1}{4}$ -gross Boxes, **10/6** per box.

CAN BE OBTAINED THROUGH

**MESSRS. MAW, SON & THOMPSON, LONDON, or of
EDWARD COOK & CO., HOUSEHOLD and SOAP MAKERS, LONDON, E.
TOILET**

**The Original
Arnicated
Corn and
Bunion
Plasters.**

ESTABLISHED
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1846.Please
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YOUNG'S
goods are
supplied, as there
are many worthless
imitations.**HENRY YOUNG, Manufacturer, LONDON.****PATENT RESERVOIR TOOTH BRUSH**
LASTS A LIFETIME

GOAD & CO. 42 MOORFIELDS LONDON E.C.

The Reservoir attached to the Brush is simply and quickly filled with water or any other liquid. Additional Brushes if required.
Plain White, 13/6 per dozen; Coloured Enamelled Reservoir, superior Brush, 17/ per dozen, in fancy boxes.**BABY'S & INVALID'S SPOON.**

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Silver Plated—Tea size, 3/9; Dessert, 7/6; Table, 11/ per dozen, on cards.

GOAD & COMPANY, 42 Moorfields, Moorgate St., London.

CORN PLASTERS.

For excellent finish and carefully selected White Felt our Plasters will be found equal to the best produced; in adhesiveness and flexibility they surpass all other makes. We make them antiseptic, which is a very valuable and desirable quality.

In glass-top boxes, containing 144 Plasters. Thin 1/8, Thick 2/4 per box.

THIN (in boxes containing 12 Plasters)	..	..	2/3 per dozen boxes.
THICK " " 24 "	..	..	4/6 " "
THICK " " 12 "	..	..	2/10 " "
THICK " " 24 "	..	..	5/8 " "

Smaller Corn Plasters (12 in a box). Thin 2/3, Thick 2/10 dozen. Plain or Arnicated.

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Round or oval (12 in a box), 2/3 per dozen boxes. Subject to Discount.

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SEABURY & JOHNSON,

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PARISIAN VAPORISER

FOR THE
COMPLEXION.FOR ALL
THROAT
DISEASES.Highly recommended by JAMES STARTIN, Senior Surgeon to the London Skin Hospital. See *The Lancet*, May 11, 1889.

Retail price, 12/6. Advantageous terms to the trade. Regd. 103,738

EAU DE LIS, preparation for the complexion. Retail price 2/.

Sole Wholesale House—

PARISIAN VAPORISER CO., 29 LUDGATE HILL, E.C.

A Lovely Bath and Toilet Water obtained by Using.



PASTA MACK.

GOLD MEDAL, Hygienic
Exhibition, Ostend, 1888.This entirely New and Un-
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paration Softens the
Water, instantly imparts
Most Delicious Odour, and
Beautifies the Com-
plexion in an extraor-
dinary way.Of all respectable Perfumers
and Chemists. Beware of
Worthless Imitations. See
the Trade mark on every
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scented, and when placed in water soon dissolve, and impart a violet-like perfume
to the water and the atmosphere."Weld's Journal says:—"It is wonderfully refreshing for the bath or for
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the most unique and agreeable means of perfuming and softening water for our
daily use."Sole Manufacturer and Inventor, H. MACK, U.S.A. Export from all whole-
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ARIEL POWDER PUFF.

(MARY WEDLAKE'S PATENT.)

[Is a New Invention by which the Powder is contained in the Puff, and
from which it is distributed in such a manner as to secure an even
dispersion wherever directed. The Ariel Powder Puff never touches
the skin, and, therefore, risk from contagion is impossible.]It may be carried in the pocket, always ready for use.
R. FARRAR, House Surgeon, St. Bartholomew's Hospital, writes:—"It is
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distinct advantages over the old form, amongst the most important of which is, that
by its use powder is delivered on parts which are with difficulty reached by the
ordinary puff."

Price 8s. and 11s. 6d. per dozen.

Of all Wholesale Houses, and of the Patentee direct.

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This artistic SHOWCARD, measuring $21\frac{1}{2}$ in. by 30 in.,
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SIR JOHN E. MILLAIS, B.T., R.A.

produced at a cost of

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is now ready for delivery, and a copy will be supplied FREE
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This Showcard (*of which a duplicate copy cannot be supplied*) is
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The Chemist and Druggist says:—Mr. Arthur W. Shirley has produced a very attractive biscuit china figure, represented in the annexed engraving. The advertisement is effective without being at all vulgar, and the little crier, we expect, will soon be a familiar figure about the country.

OYEZ! OYEZ!! OYEZ!!!

THIS ELEGANT BISCUIT-CHINA FIGURE, AN ORNAMENT TO ANY SHOP,

GIVEN AWAY

To Purchasers of 25/ worth of

SHIRLEY'S A1 BRAND MENTHOL

OR TWO IF 40/ ORDER IS PLACED.

The following special parcels have been arranged to suit all classes of trade:—

PARCEL 1. 25/. 4 doz. 2d. 1 doz. 3d. 2 doz. 3½d. 3 doz. 4d. 2 doz. 6d.	PARCEL 2. 25/. 4 doz. 6d. 2 doz. 4d. 1 doz. 1s.	PARCEL 3. 25/. 3 doz. 3d. 2 doz. 1s. 1 doz. 4d.	PARCEL 4. 25/. 1 doz. 9d. 2½ doz. 1s. ½ doz. 1s. 6d.
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By calculating what each of the parcels would realise when sold, it will be found that they yield an average profit of 80 per cent. to the retailer on his outlay.

Numerous letters have been received already, testifying to the satisfaction given by this little figure. One firm writes—"We have just received the figure, and must indeed say we are highly pleased with it, and have it in a prominent place on our counter." Another writes—"It is quite the centre of attraction of my establishment." Another—"Figures sold a dozen cones first day of showing them."

A1 COCAINE & MENTHOL 6d. TOOTHACHE TUBE.

12 ON A CARD. 3/6 DOZ.

Sells really well.

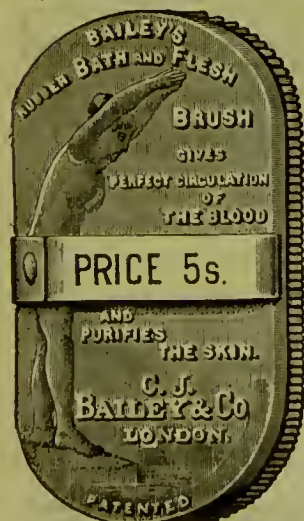
A1 CORN & WART TUBE, 6d.

12 ON A CARD. 2/3 DOZ.

JUST IN TIME FOR THE SEASON.

ARTHUR W. SHIRLEY, 30 PATERNOSTER SQUARE, LONDON, E.C.

BAILEY'S RUBBER BRUSHES.



Our Bath and Flesh Brushes have been so well received by the trade, and have met with such ready sale, that it is unnecessary for us to say anything in praise of them here. We shall continue to make them of the very best quality of rubber obtainable, and, as we are advertising them largely, we have every confidence that they will continue to sell well.

PRICE

(in neat metal cases and with wood handles),

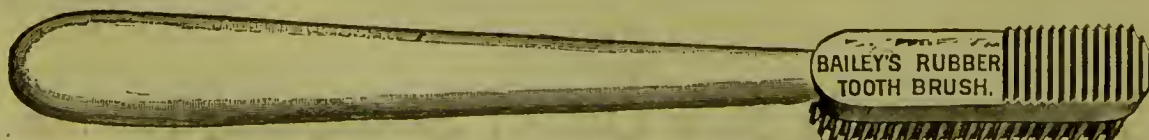
£2 2s. per dozen.

CLEAN HANDS.



Nothing has ever been invented that will so thoroughly cleanse and whiten the hands as our rubber brushes. Used with soap and water they will remove all kinds of stains without injuring the most delicate skin. They are made of the best Pará Rubber, and will last for years.

Price 1s., 2s., and 2s. 2d. each retail, or 8s., 17s., and 18s. per dozen.



We are just now introducing our tooth brushes. They are made in two sizes, of the best rubber, and are certain to give satisfaction. Our prices are 6s. and 6s. 6d. per dozen. We will be pleased to send samples at the dozen prices to any chemist who may wish to see what the goods are like, and will leave the brushes to speak for themselves.

C. J. BAILEY & CO., 30 SNOW HILL, LONDON, E.C.

S. MAW, SON & THOMPSON'S BATH GLOVES, RUBBERS, &c.

	Gloves. (Pairs.)	Straps.	Pads.		Gloves. (Pairs.)	Straps.	Pads.
CALEFACIO OR BADEN, No. 1, soft Brown per doz.	5/4 & 6/0	9/0	5/4	HONEYCOMB, White. per doz.	5/4	9/0	5/4
CALEFACIO OR BADEN, No. 2, hard Brown . . . per doz.	6/0	9/0	5/4	REVERSIBLE, No. 1, one side soft Brown, the other best White Turkish . . . per doz.	6/8	11/0	5/4
CALEFACIO OR BADEN, No. 3, soft Brown, assorted patterns, per doz.	6/6	9/0	5/4	REVERSIBLE, No. 2, one side hard Brown, the other White Honeycomb . . . per doz.	6/8	11/0	5/4
CALEFACIO OR BADEN, as- sorted patterns, export quality, per doz.	4/0	(Red labels)		REVERSIBLE, No. 3, one side Egyptian Loofah, the other best White Turkish, per doz., single	4/0	13/0	—
CALEFACIO (the U.S.), Striped soft Brown . . . per doz.	6/6	9/0	5/4	PADS, per doz.,	3/6		
TURKISH THIN WHITE GLOVES, per doz. pairs,	2/9 & 3/-				5/-		
Ditto BEST QUALITY	...	..	..				
FLANNEL	...	..	..				

S. MAW, SON & THOMPSON, LONDON.

S. MAW, SON & THOMPSON'S SUPERIOR QUALITY WATERPROOF CHECK SPONGE BAGS.

No. 1	2	3	4	5	6
7×6	8×7	9×8	10×9	11×10	12×11 inches.
6/0	7/0	9/0	11/0	12/6	16/0 per dozen.

For other descriptions see Quarterly Price Current, page 84.



S. MAW, SON & THOMPSON'S BRIGHTON SPONGE BAGS,

WITH BALL CLASP FASTENINGS, NICKEL-PLATED.

	No. 2	3	4	5	6
	8×7	9×8	10×9	11×10	12×11 inches.
CHECK...	16/0	18/0	20/0	26/0	28/0 per dozen.
PAISLEY	18/0	20/0	22/0	28/0	32/0 "



7 to 12 ALDERSGATE STREET, LONDON.

THE BRIGHTON
SPONGE BAG.

PAPIER-MOURE.

Per 100, **2/**. Per 1,000, **19/**.

INSECTICIDE VICAT.

In Bottles - - per doz. **3/4 & 6/9**
 In Bellows Boxes - - per doz. **3/4**
 In ditto (Tin) „ **6/9**

S. MAW, SON & THOMPSON,
ALDERSGATE STREET, LONDON.

ESTABLISHED
 NEARLY
50
 YEARS.

DAY & SONS'

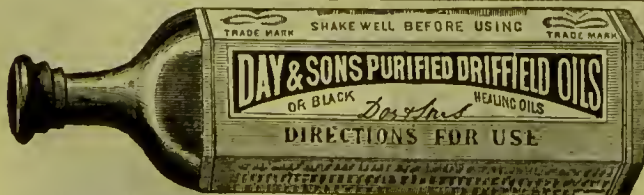
AWARDED
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30
 PRIZE
 MEDALS.

WORLD-FAMED HORSE & CATTLE MEDICINES



FOR Colic or Gripes in Horses and Cattle.
 FOR Debility and Chills in all Stock.
 FOR Scour in Calves and Lambs.
 FOR Hoven or Blown Cattle and Sheep.
 FOR Shivering Fits in Horses.
 FOR Weakness after Lambing or Calving.

PRICE—**10/** PER HALF-DOZEN, OR **19/** PER DOZEN.



FOR Healing all Wounds in all Animals.
 FOR Kicks, Stake Wounds, Broken Knees in Horses.
 FOR Cracked Heels and Saddle Galls in Horses.
 FOR Sore Teats and Swollen Udders in Cows and Ewes.
 FOR Dressing and Anointing in Lambing and Calving.
 FOR Every Horse-keeper, Farmer, and Shepherd.

PRICE—**2/6** PER BOTTLE.



FOR Fevers, Yellows, Indigestion, and Bilness
 FOR Red Water, Costiveness, and Mawbound.
 FOR Disordered System in Cattle.
 FOR Bad Cleansing after Calving.
 FOR Preventing Milk Fever and Inflammation.
 FOR Purifying and Increasing the Milk.

PRICE—**12/** PER DOZEN PACKETS.



FOR Ill Condition, Off Appetite, Disordered System.
 FOR Heat-lumps, Itching, and Scoury Skin.
 FOR Hidebound, Bad Water, and Blood Ailments.
 FOR Coughs, Colds, Sore Throats, and Fevers in Horses.

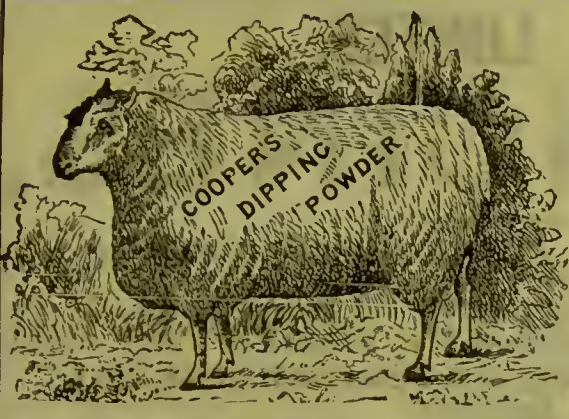
IN CANISTERS. PRICE—**3/6, 7/, 14/, AND 21/**.

THE "ORIGINAL" UNIVERSAL MEDICINE CHESTS, £2 4s. and £5. FOR ALL DISORDERS OF HORSES, CATTLE, CALVES, SHEEP, AND LAMBS.

Only Prepared by the Inventors, **DAY & SONS, CREWE, CHESHIRE.**

May be obtained of Sanger & Sons; Evans, Lescher & Webb; Barclay & Sons; Burgoyne, Burbidges & Co., & Co., London; Evans, Sons & Co., Liverpool, & Co. Exporters are invited to apply for terms. Liberal Discount offered.

THE ONLY ORIGINAL POWDER DIP

USED ON
SIXTY MILLION

ANNUALLY.

CHEAPEST,
SAFEST,
HANDIEST, BEST,
FORTICKS, LICE,
FLY, SCAB.

IN GENERAL USE SINCE 1843.

BEWARE OF IMITATIONS.

Attractive Handbills, Show Cards, Posters, &c., with Name and Address,
supplied gratis on application.

SOLE PROPRIETORS AND MANUFACTURERS,

WILLM. COOPER & NEPHEWS, M.R.C.V.S., BERKHAMSTED.

LONDON OFFICES—50 and 50a Palmerston Buildings, Bishopsgate Street, E.C.

THE SALE IN 1888
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285,720 Packets

MORE THAN
IN

1887.

Used on the Royal Farms at Windsor, Osborne, and Sandringham, and by
the principal Stockbreeders everywhere for nearly 60 years.DAY, SON & HEWITT'S
HORSE, CATTLE, AND SHEEP MEDICINES.

THE CHEMICAL EXTRACT.

For assuaging pain and inflammation in all wounds, saddle galls, strains, bruises, swellings and relaxed tendons in Horses. For paining after calving and lambing, and for swollen udders and sore feet.

2s. 6d. per Bottle; 1-dozen Box, 7s. 6d.

THE RED DRENCH.

Celebrated for inflammatory disorders, such as fevers, pleurisy, foot-and-mouth complaints, yellows, surfeit, and red-water. Also for difficult calving and lambing. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a bad time of parturition.

For Sheep, 3s. 6d.; for Cattle, 13s. per dozen Box.

THE GASEOUS FLUID.

Unmatched for colic or gripes and debility in Horses, for colds, chills, shivering fits, flux and diarrhoea in Cattle, Calves, and Sheep. For Ewes weakly after lambing and blown Cattle and Sheep, its effects are marvellous.

20s. per dozen Box.

THE GASEODYNE.

Used as laudanum in uncontrollable spasmodic pains and violent bowel complaints. Invaluable for parturition in Mares, Cows, and Ewes.

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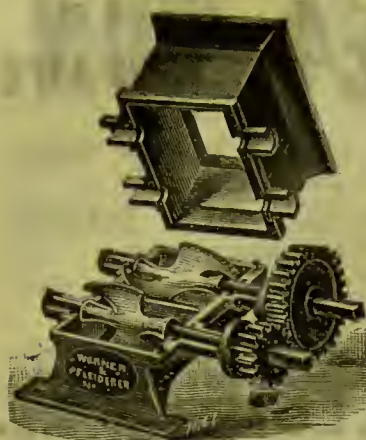
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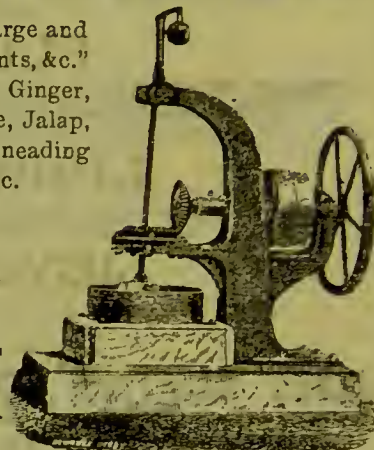
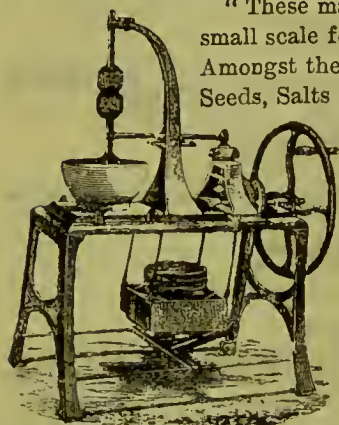
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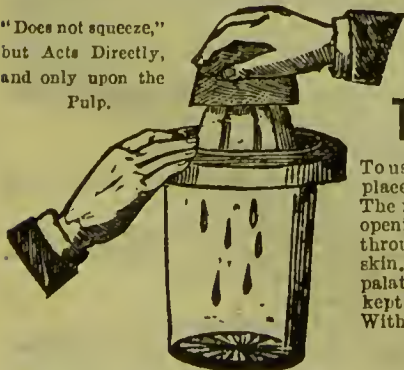


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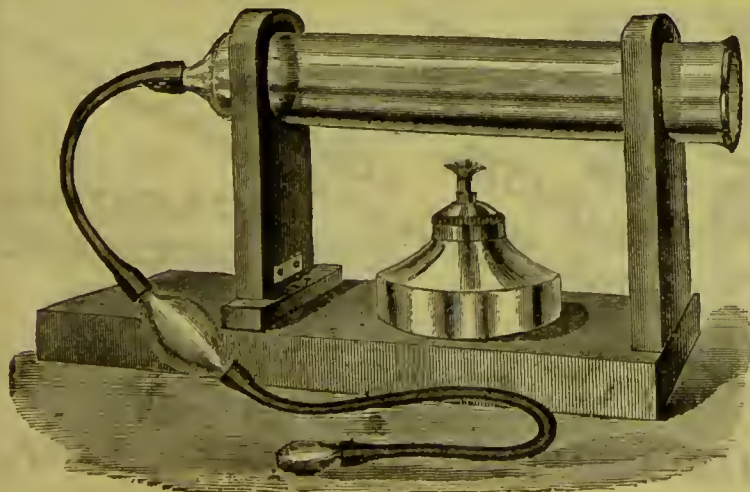
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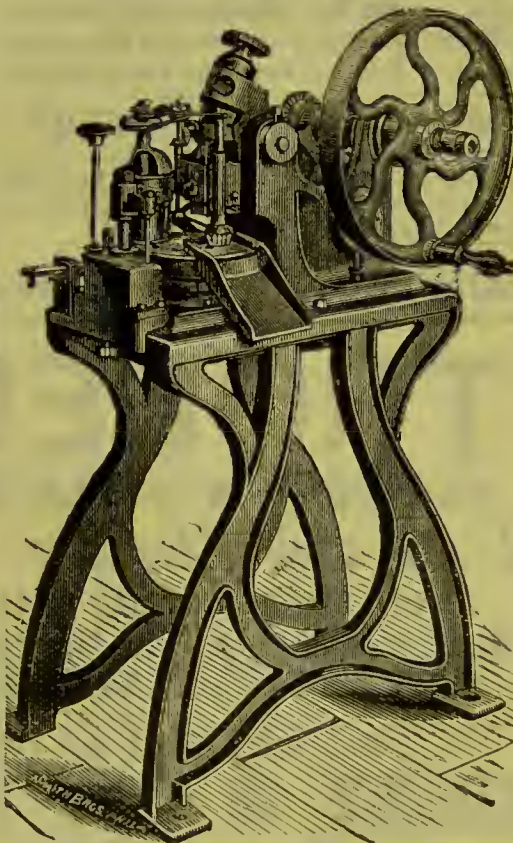
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15/., with Book Rest & Medicine Box, 21/., less 33½ per cent.

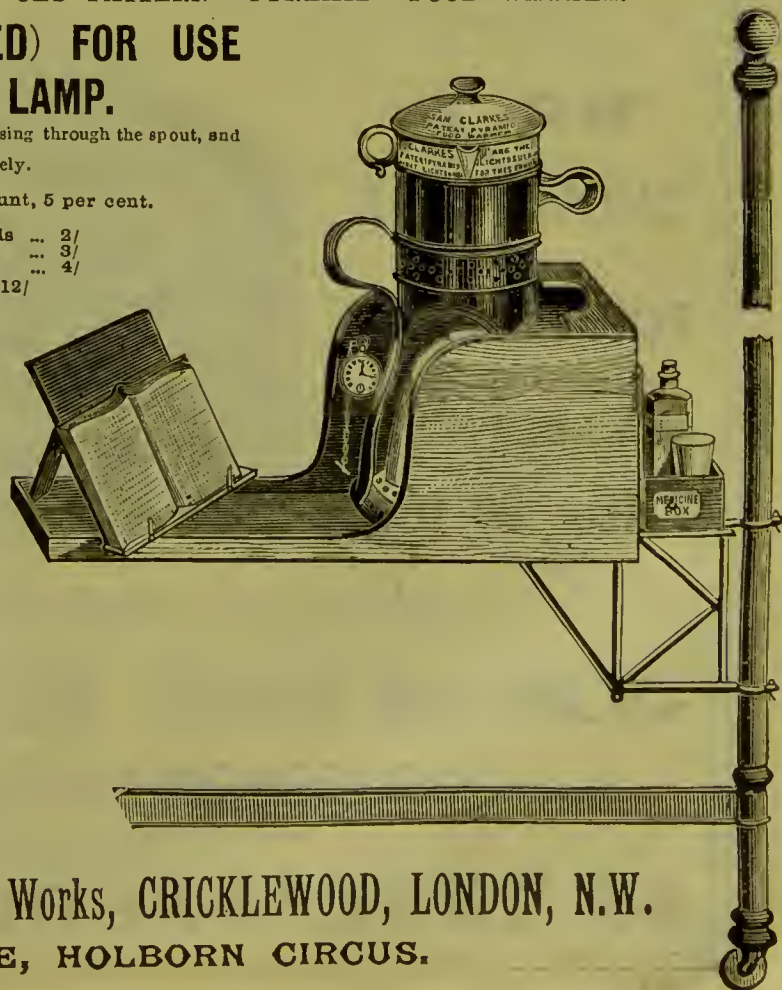
Food Warmer, see above.

Brass Bracket, 4s. extra. Adjustable Brass Support for book rest, 5s. extra.

INSTRUCTIONS FOR FIXING.—Place the Clips round the bed-post, insert the Thumb-screw in the square hole at the end of same, and screw as tightly as possible. The Clips being of strong steel, they will fit any size post. A little cloth or wash-leather should be placed under the bed-post to prevent scratching the post.

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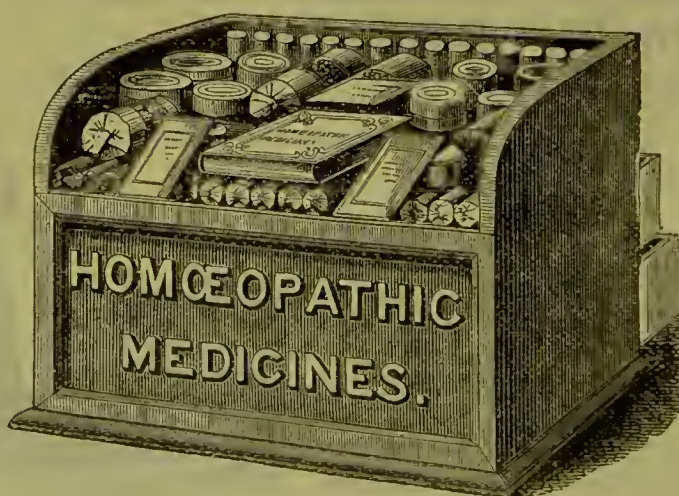
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